AMERICAN BEE JOURNAL

The Oldest Bee Journal in the English Language

ESTABLISHED BY SAMUEL WAGNER IN 1861

 Published monthly at Hamilton, Illinois. Entered as Second-Class Matter at the Postoffice at Hamilton, Illinois. C. P. Dadant, F. C. Pellett and G. H. Cale, editors; Maurice Dadant, business manager. In United States, Canada and Mexico, $1.00 a year; 2 years $1.50; 3 years $2.00. Foreign, $1.25 a year; 2 years $2.00; 3 years $2.75. Subscription stopped at expiration date printed on wrapper.

CONTENTS

MONTH OF OCTOBER, 1937

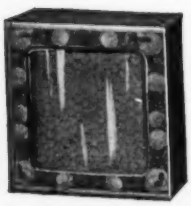
INDEX TO DISPLAY ADVERTISERS

HONEY CONTAINERS

IF your order is for $50.00 at the prices shown, deduct five per cent; if $100.00 deduct ten per cent in ordering tin and glass containers or both together. Prices subject to change.

	A	B	C	D	E
2½ lb. cans, 100 in ctn., wt. 31 lbs.	$3.90	$4.05	$4.25	$4.20	$4.20
5 lb. pails, 50 in ctn., wt. 27 lbs.	3.05	3.10	3.25	3.20	3.20
10 lb. pails, 50 in ctn., wt. 45 lbs.	4.50	4.75	4.80	4.80	4.80
5 gal. cans, 1 in ctn., wt. 6 lbs.	.44	.48	.45	.45	.45
5 gal. cans, 50 in crate, wt. 175 lbs.*	15.50	16.50	15.85	16.25	16.25
½ lb. jars, 24 in ctn., wt. 12 lbs.	.68	.75	.68	.69	.69
1 lb. jars, 24 in ctn., wt. 21 lbs.	.85	.98	.90	.93	.93
2 lb. jars, 12 in ctn., wt. 17 lbs.	.63	.65	.63	.65	.65
3 lb. jars, 12 in ctn., wt. 21 lbs.	.68	.70	.69	.70	.70

*Can only be shipped 50/c.



WINDOW CARTONS

THESE beautiful pink and green cartons with a large cellophane window show up section honey to the best sales advantage. The color combination blends wonderfully with the white comb surface and the large window shows an enticing area of honey comb to the buyer. Flowered around the edges with clover blossoms and completely enclosing the section, these cartons surely help sell honey for more money.

U644—4¼"x1⅞" Beeway
U645—4¼"x1½" No B'way
U646—4"x5"x1⅜" No B'way

100, **$1.20**; 500, **$5.50**
1,000, **$10.00.**

Weight 6½ lbs. per 100; 55 lbs. per 1,000. All postage extra.

REVELATION COMB HONEY WRAPPERS

	100	500
U649—colored 4¼	$ .80	$3.65
U664—plain 4¼	.55	2.50
U658—colored Bag 4¼	.95	4.05
U430—Bag filler device, wt. 2 lbs.	ea. 50c	

Above postage extra. Wt. 100, 1 lb.; 500, 5 lbs.

Write Lynchburg for prices on all cellophane plain wrappers.

A—F.O.B. Watertown, Wis.

B—F.O.B. Sioux City, Iowa.

C—F.O.B. Springfield, Ohio.

D—F.O.B. Lynchburg, Virginia.

E—F.O.B. Albany, New York.

Ask for our general catalog too if you wish items other than those listed here.

G. B. LEWIS COMPANY ∴ ∴ ∴ Watertown, Wisconsin

BRANCHES: COLONIE & MONTGOMERY STS., ALBANY, N. Y.: 1117 JEFFERSON ST., LYNCHBURG, VIRGINIA: 110 W. MAIN STREET, SPRINGFIELD, OHIO: 11 W. THIRD STREET, SIOUX CITY, IOWA.

Send your order to our office nearest to you.

AMERICAN BEE JOURNAL

Vol. LXXVII—No. 10 Hamilton, Illinois, October, 1937 Monthly, $1.00 a Year

Selling Direct to the Grocer

By Walter H. Hull,

Virginia.

THE small commercial beekeeper does not find it very profitable, as a rule, to sell his crop through wholesalers and jobbers. But frequently there seems no other way open to him. He might sell to better advantage direct to the consumer, but if he does not care for that line of business—and many people do not—the process of turning his crop into cash is more than likely to become a catch-as-catch-can affair which follows no logical plan of campaign, and in which, as the season advances, considerations of profit and good business are more and more subordinated to the one idea of getting the crop off his hands. Generally he ends up by dumping it into some dealer's hands for a song, which in these days is a whole lot less than it takes to produce a crop of honey. As the last of it goes out the door he sighs with immense relief and turns thankfully to his bee yard, where he knows his way about and can take some honest pleasure in his work. Here for a few months, until time for his next bout with the marketing problem, he can be happy; for people generally are happy when doing the things they can do well.

We find exceptions to this routine, of course; the ranks of beekeepers include a proportion of good salesmen, while others may develop plans specially suited to their needs. But my observation is that the attitude of most beekeepers toward the marketing question is not unlike that of an amateur boxer facing a hard-boiled champion in the ring—and the result is too often similar.

To the end that so painful a result may be less frequent, I propose that we consider the species **Retailer grocerosis** and see what can be done with him.

We find him occupying a rather important place in the scheme of things as they are, and his demands in that position are numerous and exacting. This is not to be wondered at when we consider the numerous and exacting demands that are made upon him by his customers. One of the requirements is that, having sold them something they like, he must be prepared to sell them more of the same.

Suppose, for example, the case of a housewife who has decided to try one of the honey recipes provided for just such cases by the American Honey Institute. Naturally her first move is to buy the honey. She knows, perhaps, as much about honey as you or I know about shredded cocoanut or Egyptian dates. And she buys it just as she buys those and other things—in convenient packages of a pound or two from the grocer's stock.

Her experiment is successful. Her family calls for more of the same, until the honey jar is empty and she goes to the store for another. Well, suppose she can't get it. Suppose the grocer is carrying a different variety of honey now.

Although the new variety may be just as good, or better according to some standards, she doesn't want it. How can she know whether it will give the same results as the kind she has tried, or whether her family will like it as well. She experimented once but will hardly try again so soon, especially as there is no assurance that the new variety will be any more regularly obtainable than the old. Any way you look at it, the net results show up bad for the honey trade. There is reason to believe that the bulk of the honey trade in the future will consist of honey used in cooking, and it looks to me as though uniformity of grade and regularity of supply would become more and more important.

It is no secret to anybody that the merchant who fails to keep on hand such goods as his customers have learned to call for is committing business suicide. Least of all is it a secret to the merchant himself, and he rightly insists that those who undertake to supply him be prepared to supply him regularly.

Although we have taken honey as an example, the same rule holds for the scores of other products handled by any large retail grocer. Hence the need of the wholesaler in the trade, to assemble these goods, keep an adequate supply on hand and parcel them out to the stores as needed. And by the way, the advent of the motor truck has made this parceling out a very literal process—deliveries two or three times a week in some cases, scarcely ever less than once a week. The result is quicker turnovers, more efficient use of capital, fresher goods and greater variety for the customer to choose from.

This explains why the dealer looks askance at you when you walk into his store with a case of honey under your arm. However good the honey may be it is more than apt to spell tribulation for him. If he buys at all it will be for special reasons, probably one of the following three:

1. Policy. He hopes to sell you enough other stuff to even the score.
2. Exceptionally favorable price. Some storekeepers will buy anything if they can get it cheap enough.
3. Because there is a local and more or less seasonal demand for your particular product, in which case he regards it as a specialty taken on for the time being. For his regular trade he still looks to the wholesaler; but in this last mentioned reason we have a key that opens another door to beekeepers, not everywhere, but in certain favored localities.

Although there will always, I believe, be a place in the retail trade for the beekeeper selling direct to his private customers, the bulk of the honey crop will pass through the

regular channels of trade from producer to jobber or wholesaler and so on down the line, as in fact it does now, though not as smoothly as it might.

At the same time there are certain cut-offs along that route that we would do well to make use of whenever we can. We have one of them right here. Just as there are conditions under which the honey producer may profitably deal directly with the consumer, there are likewise conditions under which producers may deal directly with retailers to their mutual advantage. They **may** do this as individuals, but they can do it much better, with more satisfaction to all concerned, if they can manage to deal collectively.

This condition prevails where there is a limited territory producing a honey of outstanding quality and flavor found nowhere else. One such place (to choose from those near home) would be the sour-wood section of Virginia and southwestward. Another is found in the Coastal Plains region of North Carolina and Georgia where gallberry honey is produced.

Both of these are exceptionally fine honeys, but, fine as they are, neither is in sufficient quantity to make an important showing in the nation-wide markets. In fact, they are scarcely known to the average honey eater outside the sections where they are produced. In these sections, in the case of sourwood at least, the honey often sells at a premium. Being recognized as a local product of more or less seasonal nature it is handled by the stores on that basis, much the same as fresh fruit from local producers is handled everywhere. If, however, this honey were put through the regular marketing channels in competition with varieties like clover and buckwheat it would not only lose face, so to speak, but it would lose value, would sell at less than its real worth; for in those markets the dealers could not give it the special value that it commands at home.

Some of you may, properly enough, question the soundness of this theory that where specially fine honey is produced in a limited area it can be sold best through an association direct to the retailer. But it seems to me that the experience of such organizations as the fruit growers of California, Washington and Oregon have established, as well as some of the beekeepers' associations, show beyond a doubt that these organizations of limited scope, having localized and definite interests in common, are thoroughly practical and effective under competent management, and are often of greater direct benefit to their members than organizations of wider scope and more diverse objectives.

The only real point in question, so far as I can see, is whether such an association can compete successfully with the regular wholesale houses for the retailer's trade. Here, as we have already seen, the one thing the retailer demands above all others is dependable supply both in quantity and quality. This a well managed association can give without question up to the limit of its supply, and more intelligently under such conditions as we are considering than the average wholesaler can do.

The advantage of an association over the individual producer in this respect is obvious. The combined crop of the various members gives them a supply large enough to justify them in going after the trade. It provides a sound basis for their salesman's promises when he makes his rounds and gives the grocer the necessary assurance of a responsible organization behind the product he is offering for sale. The chance of destructive competition is reduced to a minimum, while at the same time uniform packing and grading makes selling easier (and less expensive). All in all I think we are safe in saying that the association can handle a crop under these conditions much more effectively than the individual producer could possibly do.

As a matter of fact there is a sort of precedent for this method in the grocery trade itself. In order to meet the competition of chain stores (which are simply wholesale houses operating their own retail establishments) many of the so-called independent stores have simply reversed the idea and joined together in operating their own wholesale houses. The result of this tendency is that the old style wholesale house selling everywhere in general has become somewhat of a back number. Therefore, with the ice already broken, the retail trade is in a mood to consider favorably any other source of supply that can meet its essential requirements of dependability.

This tendency toward supplying retail stores from local wholesale houses that can make frequent and inexpensive deliveries is an open invitation to honey producers to establish their own local wholesale honey houses; but the idea is best applied in localities where honey of outstanding quality is produced over limited range, so that it can be featured as an individual product obtainable nowhere else. The selling, of course, need not be confined to the district where the honey is produced, provided there is enough of it to supply a larger market regularly.

Whenever this plan can be put into effect we have an open door into the second story of our marketing structure, available to producers of especially good varieties of honey from limited range.

—ABJ—

Pictures for Everybody

The Cover.

WINNER I. C. EVANS, Decatur, Illinois. Mary Lou Evans is his grand-daughter. He says, "This swarm is from a Modified Dadant hive. Took two ten-framers to hive them the first of June. Picture taken July first with everything full of honey. Just back of them is forty acres of sweet clover."

Here's Your Chance.

A good chance to get your favorite beekeeping picture into the "Old Reliable." Cameras and films are so good these days and the urge to take pictures is so general that most of us have some kind of a picture taking device.

For each picture accepted for use in American Bee Journal, you will get one dollar and your choice of a subscription extension for one year or any dollar book we publish. For each picture kept for the cover, you will get FIVE DOLLARS—but, few will make it. Come on now. Try your hand.

This Month.

Page 483—Paul Wege should sell with this sign to help. Really good roadside stands are moving considerable honey this year.

Page 490—Not sent for the contest but Roy Littlefield, Exira, Iowa, deserves the credit for painting this slogan picture with watercolors. The slogan on the map does not show—"The Universal Sweet of the Ages."

—ABJ—

Scotland Goes for Milk Bars

This is from a clipping sent us by F. C. Mann, of Massachusetts, and is from the "Boston Post" of December 24.

"Milk bars are becoming so popular in Scotland that they are being opened in all the leading cities and may invade the rural districts. Scots flocked to the pioneer bar in Central Station at Glasgow and other places were soon operating. A chain of milk bars is being started, and dairy farmers are establishing others. Hot milk drinks with fruit flavors are in strong demand. Among the novelties are 'Cure that Cough' (hot milk and ginger) and 'Husky Throats' (hot milk and honey)."

Indoor Wintering of Small Colonies

By J. F. and Guy Diemer,

Missouri.

Hive on empty super, covered with Diemer's telescope cover. The wintering cage in front shows a partition in line with partition inside the hive. Two nuclei might be wintered thus. The Diemers have used only full hives with this plan so far, however.

I HAVE been requested to describe the system by which we wintered three-frame nuclei and a number of colonies of bees of various degrees of strength. The requests came from editors of bee journals. Naturally these men expect a perfect narrative of all parts, and all particulars in regard to it so they can give this important information to their readers so it will be plainly understood, and can be used by beekeepers readily and without failures.

Naturally, this is just what any sane man would expect when he reads directions, he wants them to be absolutely correct. This writer is not capable of doing it just that way, and it is doubtful if any other writer can do it and give all of it in one chunk, so others will understand it as well as the ones who developed the idea.

My son, Guy and I have talked it over and decided it would be greatly simplified and more effective in the future if we give a few of the facts along with the basic principle that led to the attempt. This, we think, would be giving enough of it to the public so that in time some of our best thinkers might get interested and break it to the public in small doses or all in one dose if they feel like taking such a responsibility which we don't.

We have our scientists that can readily tell us all about "calorification, calorimeters, calorifere, calorific and possibly use the word 'Philoprogenitiveness'" if it could be made to fit in. But what do all of these words mean to us common beekeepers? We wouldn't know whether they meant icebergs or a hot box.

Then, there is the matter of different climates. The plan we will use means that we will depend on the heat generated by the bees to keep 400 small colonies comfortable in a dark, ventilated and insulated room 12x16. Four hundred full colonies in a room this size would perish with heat.

So, it can be seen at once why we are not giving definite directions. Your judgment, Mr. Beekeeper, is at stake. Your knowledge of "bee's desire" in wintertime. If you live in North Dakota, you will need to do differently to what you would do in Missouri. You will discover that the size and number of colonies have a great deal to do with it. Bees do generate heat, bees also can be compared to a thermostat, that expands or contracts as the temperature changes.

This means that bees have a heating plant and a cooling system all their own. It means that the bees will assist greatly in plans for wintering. It means that there will be no change in temperature in the immediate part of the hive where the bees have their winter nest, even though the temperature in the room varies as much as 35 degrees. But there is a limit to how far they can go. And here is where the operator comes in, it is his place and duty to find the way to help the bees. Just remember that is all we are doing anyway. There would be nothing we could do if our bees did not possess this, and other characteristics that we must know about or fail with indoor wintering.

We will remember that the bees can maintain the warm air blanket that surrounds them in their winter's nest while in the room and out of the cold northern winds, snow, ice and zero weather they would have to contend with, if outdoors.

In outdoor wintering of bees the wind does more harm than bitter cold, part of the entrance must be left open for air. While in a room, the entrance is left wide open, but is provided with a screened cage so the bees can drag out the few bees that die in the hive, thus preventing accumulation of bad odors and foul air we usually find in cellar wintering.

We have been told (by letter) that bees cannot be successfuly wintered indoors unless the temperature is maintained at precisely 48 degrees above zero. This may be true, but we did winter them to perfection with the temperature changing from 36 up to 58 in the bee room. And we are not or would not be alarmed if the temperature varied as much as 35 degrees.

I will now give the results of our experiment with indoor wintering last winter. On March 5th, 1937, we removed all of the three-frame nuclei and colonies which varied in strength from half to full colonies from the room where they had been since December 10th continuously. Maple was in bloom.

We went through each colony immediately on removal. While the bees flew out freely, yet there was no excess of droppings. The three-frame nuclei had used around two pounds of stores. There was no dampness in any of them. There were no dead bees in the hives, all had been removed to the cage. There was no pollen we could see, and yet each of them had a small circle of capped brood and every queen was depositing eggs. The bees and queens had the same clean, neat appearance that bees have in summer.

Those small colonies built up rapidly and all of the small ones was at the peak of their strength when the main honeyflow began. They used stores of honey much faster than they did while in the room. We were much pleased with results, and will winter from four to six hundred the same way next winter. Why not?

Could there be any doubt that any number of colonies (in reason) could be successfully wintered in an air conditioned room? It would not be necessary to provide a room perfectly conditioned, because you or I could allow a variation of 35 degrees. Possibly enough stores could be saved to pay expenses. It will be done in the extreme North.

Each month we warmed the bee room up to 80, turned on a strong light and the bees seemed to rush out into their cages. We turned the light off after a few minutes and the bees went back into their hives. They seemed contented. The cage is important. The strength or size of the colonies is important. Large colonies generate too much heat, small ones have more room to spread out. Pure air is important.

The two larger flowers, one with calyx removed, are of common red clover, the corolla length averaging about 9.5 mm. The two smaller flowers, one also with calyx removed, are of the Zofka clover, the corolla length averaging around 6.5 - 7 mm. (Photo by Dr. J. N. Martin.)

Zofka clover flower with calyx removed to show height of nectar. The nectar is visible through the walls of the corolla tube and the length of the nectar column is indicated by the lines scratched on the picture. The longer column is a little more than two millimeters. (Photo by Dr. J. N. Martin.)

The Zofka Red Clover

By Frank C. Pellett,

Iowa.

RED clover long has held an important place in American agriculture. For many years it was the one legume on which the farmer depended in his crop rotation. It was a staple crop, as much a part of the general plan as Indian corn, oats or wheat. Because it satisfied the need so perfectly there was little interest in any substitute.

Because of the depth of the corolla tube the plant was dependent principally upon bumblebees for pollination.

Soon after the turn of the last century a change began to be noticed. The seed crop failed with increasing frequency and it became more difficult to get a stand. No longer was red clover as dependable as it formerly had been.

One group of farm crops specialists met the changing conditions by recommending the planting of alfalfa or sweet clover instead of the red clover on which farmers had so long depended. Another turned attention to a study of conditions which might be responsible for the frequent failure. With a growing scarcity of seed it was easier to establish the substitutes and, but for this condition, alfalfa and sweet clover would have been very slow to achieve popularity.

The fact was soon recognized that the scarcity in the bumblebee population was an important factor in the red clover problem. In recent years a series of dry seasons which made it difficult to secure a stand with new seeding, have intensified the difficulty. Failure to maintain soil fertility in large areas of good farming territory is another factor, but this is in part due to the failure of the red clover crop on which the farmers depended when seeding the land in rotation.

The relationship of insects to red clover was carefully studied at the time when the plant was introduced to Australia and New Zealand. There no dependable seed crop was secured until the introduction of bumblebees insured pollination.

The Beekeeper's Interest.

The beekeeper has always recognized the big fields of red clover as a potential source of abundant honey. From the time the bee magazines were established in this country, there has been much discussion of the possibility of finding a red clover with a short flower tube on which the honeybee might work. Although it was the subject of endless discussion, until recently nothing much has been done about it. Numerous investigations have been made and bulletins written which recorded the behavior of the bees in visiting red clover, but the problem of breeding offered so many obstacles that no plant breeder in this country was prepared to overcome them.

Iowa is one of the states where red clover has been most important in the farm rotation and where its failure was most keenly felt. For more than twenty-five years one or another of the members of the experiment station staff has been interested in the problem in connection with other studies. The members of the extension service, because of their work in the field, have constantly met the appeals of farmers for help in its solution.

For several years, F. B. Paddock, state apiarist, has contended that the key to the whole problem was a cheap and readily available supply of seed.

If seed is to again become readily available it must be raised in this country and to be raised here we must have red clover which is attractive to the honeybees, since bumblebees in numbers sufficient to pollinate large fields of red clover are no longer available except in isolated areas.

A Cooperative Experiment.

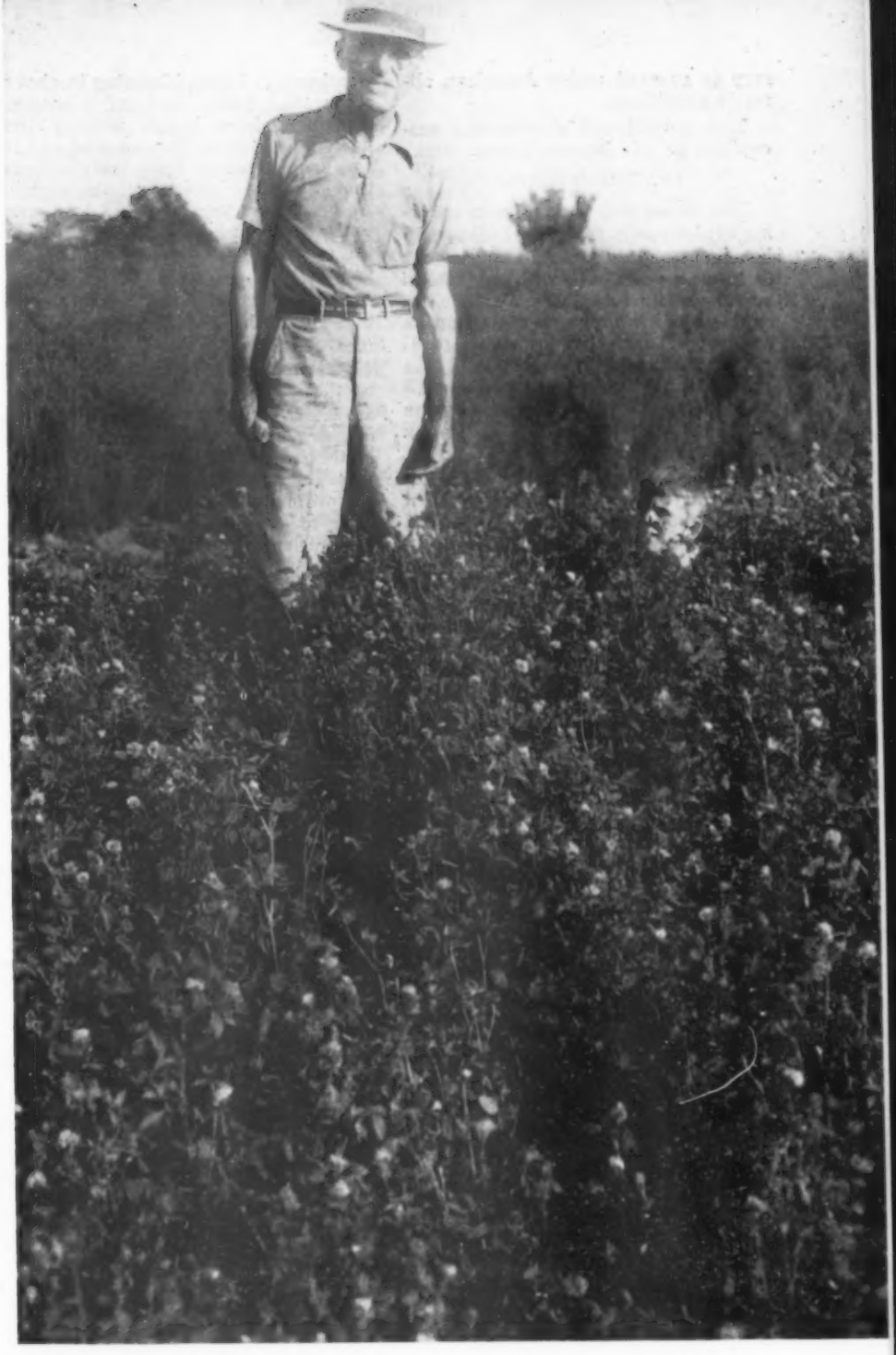
With the establishment of a cooperative station for the study of beekeeping problems supported jointly by the Iowa Agricultural Experiment Station and the American Bee Journal at Atlantic, Iowa, this problem presented itself as a suitable one for study along with the investigation of disease resistance.

As has been stated in these columns on several occasions, the extension service is represented by F. B. Paddock, state apiarist; the experiment station by Dr. O. W. Park; and this magazine by the writer. Since Dr. J. N. Martin, of the botany department, has been interested in a study of red clover for many years it seemed very fortunate that he was in position to give supervision to this project as well as to other honey plant studies which might be undertaken at the sub-station.

The writer first became hopeful of finding such a red clover as would meet the need of the honeybee following a visit with Dr. N. E. Hansen after his return from northern Asia many years ago. Hansen reported visiting a valley in Russia where the beekeepers depended principally upon red clover for their honey crops. This indicated either a clover with shorter flower tubes or a bee with longer tongue, either of which might solve the problem.

Our project seeks to find a red clover already developed which is suited to our conditions rather than spending the many years of painstaking effort necessary to a plant-breeding project. Accordingly an effort was made to secure seed from the European plant breeders who were working on this problem. Similar attempts to shorten the flower tubes of red clover have been made in Denmark, Norway, Switzerland, and Czechoslovakia.

In most cases the shortened tube has been accomplished at the expense of a dwarf plant which will produce but little forage. In some cases, also, the plant is smooth and lacks the hairy quality that seems to be neces-



Frank Pellett and his grandson in the patch of red clover with the short corolla tubes. (Photo by Dr. J. N. Martin.)

Two pictures showing size of Zofka red clover. (Photos by Dr. O. W. Park.)

sary to succeed under American climatic conditions.

The smooth red clovers are susceptible to leaf hopper injury.

Dr. Zofka's Clover.

The writer was fortunate in securing seed directly from Dr. Zofka, who has spent twenty years in an attempt to breed a red clover with short flower tube while retaining the other desirable qualities. Reports from Europe are to the effect that he has succeeded to a remarkable degree and that his clover produces more hay as well as more seed, while at the same time offering the possibility of a honey crop for the beekeeper.

Our land was prepared with special care and the seed was sown with a drill to insure proper depth as well as equal distribution. The planting was much later than should have been, due to the press of other matters at the time. It was May before the seeding was done and this was unfortunate because the season turned very dry soon after, thus exposing the young plants to great danger.

The germination was satisfactory and a good stand was the result. It grew rapidly considering the very dry weather and began blooming in about six weeks from time of planting. The honeybees began visiting the flowers as soon as they opened and it was soon apparent from their actions that they were able to get the nectar. At first there was seldom a bee seen to be gathering pollen, but later in the summer pollen collecting became very general.

Soon after the clover began blooming, Dr. J. N. Martin began making measurements to ascertain how much variation there might be in the length of the flower tubes. He found some as short as five millimeters with others as much as eight or more millimeters in depth. The average length was about six millimeters, whereas the ordinary red clover is from about nine to eleven millimeters. With a tongue length of little more than six millimeters the honeybee is unable to reach the nectar in ordinary red clover, while it can easily do so with the Zofka clover.

An examination of the flowers disclosed also that the nectar was about two millimeters in depth in the tubes of the Zofka clover, which was about double the depth of nectar which Dr. Martin found in the ordinary red clover. Not enough measurements were made to know whether this always holds true.

Promise for the Future.

Our plot of one-tenth of an acre of the Zofka clover thus at this writing looks most promising. The flower tubes are of a depth which enable the honeybees to get the nectar and the bees visit the flowers freely. The nectar yield is sufficiently abundant to offer promise of a honeyflow under suitable conditions and the yield of forage looks to be heavy. The heads which have ripened have been well filled with seeds and the plants have done well in spite of an unfavorable growing season because of dry weather when most of the new clover seeded in the neighborhood has been lost.

It is too soon to be sure that the plant will prove well suited to our climatic conditions. It may not be winter hardy and other unfavorable reactions may yet develop. Part of the stems are hairy while some are smooth, which indicates the mixed parentage of the plant.

On the whole the prospect is most encouraging and we hope to secure sufficient seed from the plot for a larger field test next year.

—ABJ—

Standing Room Only for the International Beekeepers' Conference

By George J. Abrams, Secretary,

American Honey Producers' League.

THE stage is set. The musicians are beginning their unharmonious tune up in the orchestra pit. The actors are getting into costume and in a very little while the curtain will rise on the most outstanding performance ever enacted by and for American Apiculture. The "house" is practically sold out for this 1937 drama of bee culture.

The cast is superb. Look at the billing. It's full of old favorites and new faces. Dr. E. F. Phillips, beloved of old, has been coaxed out of "retirement" and has one of the leads. E. R. Root, the grand old Edwin Booth of Bee Culture and dean of apicultural thespians has a leading role. Reese, Foster, Prevost, Dyce, Anderson, Parks, Dadant, Hawkins, LeStourgeon, Kelty, Clay, Lothrop—all perennial favorites — have "fat parts." What a cast!! And much is expected of Eugene Auchter, a newcomer to the annual play, but one who has proved his worth elsewhere. The lighter side will be ably handled by that Prime Minister of Mirth, rollicking Jess Robinson, ably assisted by none other than slapstick Georgia Bohne, the Luling playboy. And the fair-haired boy of the show? You've guessed it—Jas. I. (To heck with Hollywood) Hambleton. (Won't I catch heck for this) Ingenue? Malitta (Honey Girl) Jensen. (And for this too). And don't overlook Ethel Kreb's fast stepping "Auxiliary Girls." It's a great cast folks. Must have cost the producers plenty. Take a look at the program and agree that this isn't merely ballyhoo.

INTERNATIONAL BEEKEEPERS' CONFERENCCE

Hotel Washington, Washington, D. C.

October 25, 26, 27, 1937

MONDAY, OCTOBER 25

Morning Session

8:30-9:30—Registration, Hotel Washington.

Roof Garden—Meetings of committee that were not able to conclude their business prior to the convention.

9:30-11:00—**Apiary Inspectors of America.**

Assembly Hall—Regular annual meeting and business session. R. E. Foster, President, presiding. Jas. E. Starkey, Secretary.

10:00-11:30—**National Ladies Auxiliary.**

Mezzanine—First meeting of charter members. Mrs. Ethel Krebs, President, presiding. Mrs. Florence Bennett, Secretary.

11:00-12:30—**Southern Conference.**

Assembly Hall—Regular annual meeting and business session. E. S. Prevost, President, presiding. A. V. Dowling, Secretary.

Afternoon Session

1:30-3:00 — **American Honey Producers' League.**

Assembly Hall—Address by President, Chas. A. Reese.

Addresses by the following leaders in bee culture: H. H. Root, General Manager, A. I. Root Co.; H. C. Dadant, Dadant & Sons; Kenneth Hawkins, Sales Manager, G. B. Lewis Co.; E. G. LeSturgeon, Editor, Beekeepers' Item.

3:30—**American Honey Producers' League.**

Assembly Hall—Regular annual meeting and business session. Chas. A. Reese, President, presiding. George J. Abrams, Secretary.

Evening Session

8:00—**Annual Meeting Virginia State Beekeepers' Association.**

Mezzanine—T. C. Asher, Presiding. W. A. Caldwell, Secretary.

Washington by Night—(See entertainment committee for information about night clubs, theatres, pre-bed time sightseeing walks.)

TUESDAY, OCTOBER 26

Morning Session

9:00-9:45 — **Queen Breeders and Package Shippers** (Public Session).

Assembly Hall—W. E. Harrell, Chairman, Control Committee, presiding.

Address, J. M. Robinson, Managing Director, Control Committee, "Using Honey Bees."

9:45-10.45—**Apiary Inspectors of America.**

Assembly Hall—R. E. Foster, President, presiding.

Address, R. E. Foster, "Object of Organization of Apiary Inspectors of America."

Addresses by Lee A. Strong, Chief, Bureau Entomology and Plant Quarantine; Dr. C. A. Brown, Principal Chemist in Charge, U. S. Bureau Chemistry and Soils; C. W. Kitchen, Assistant Chief, Bureau Agricultural Economics; W. G. Campbell, Chief Food and Drug Administration.

10:45-12:30—**Southern Conference.**

Assembly Hall—E. S. Prevost, President, presiding.

Addresses by E. S. Prevost, State Apiculturist, South Carolina; Eugene C. Auchter, Assistant Chief, Bureau Plant Industry; Dr. E. J. Dyce, Professor of Apiculture, Ontario Agricultural College; George W. Bohne, President Louisiana Beekeepers' Association.

Paper by H. B. Parks, Chief Texas Apicultural Research Laboratory.

Afternoon Session

1:30—**Sightseeing.**—(Suggested trips: Mt. Vernon, Grave of the Unknown Soldier, Arlington Memorial Cemetery, Historic Alexandria, Government Buildings, U. S. Agricultural Research Center. See entertainment committee for details.)

Evening Session

7:00-8:15—**Tri-State Smoker** (Everyone welcome).

Mezzanine Floor — Sponsored by **Maryland,** Virginia and Delaware Associations.

Address by Edwin J. Anderson, State Apiarist, Pennsylvania.

8:30—**"Trends in American Beekeeping."**

Assembly Hall—Dr. E. F. Phillips, Professor of Apiculture, Cornell University.

WEDNESDAY, OCTOBER 27

Institute Day

(All Sessions in Assembly Hall)

8:30-9:30 — Registration at the Institute Booth.

9:30—Meeting called to order, Russel H. Kelty, presiding.

9:45—"Whither Goest Thou," E. R. Root, Medina, Ohio.

10:00—"Inspiration in the Bee Business," Russel H. Kelty, President, E. Lansing, Michigan.

10:30—"Where Do We Stand." Discussion of the Institute by Breeders, Manufacturers, Packers, Producers, Publishers.

Afternoon Session

E. T. Cary, Presiding.

1:45—"Honey Distribution from a National Standpoint," Harold J. Clay, Bureau Agricultural Economics Marketing Specialist, Washington, D. C.

2:15—"Containers and Their Relationship to Increased Consumption," Dr. W. E. Braithwaite, Division Simplified Practices, Bureau Standards, Washington, D. C.

2:45—"Utilization of Honey in Commercial Baking," Dr. R. E. Lothrop, U. S. Bureau Chemistry and Soils, Washington, D. C.

3:15—"Regulations of the Pure Food and Drug Department Pertaining to Honey Packing and Honey Utilization," Dr. W. S. Frisbie, Chairman, Foods Standard Committee, U. S. Department of Agriculture.

4:00—"A Woman's Viewpoint." **Speaker to** be announced.

4:30—Report on Contest Winners and Auxiliary Meeting.

Evening Session

7:30—**Banquet.**

Hall of Nations—Practically no speech making. Music. Floor Show. Dignitaries.

Well you see folks (to get down to earth) a real effort has been made this year to work up a good program and to simplify it by eliminating overlapping schedules so as to give those in attendance a chance to hear all the addresses. The effort, however, has not been altogether successful. The Shippers of Package Bees and Queens, the Southern Conference, the Apiary Inspectors of America, the American Honey Producers' League, and the American Honey Institute all must have a place on the three-day program and avoiding conflicts, therefore, was exceedingly difficult for the program committee. As a result many well known names in American Beekeeping do not appear on the program simply because of the limited time. The program provides, however, for separate sessions of the several organizations, so that the most urgent business can be taken care of without confusion and with an opportunity for everyone to join in. As you will notice an innovation will be tried this year of holding the business session of the American Honey Producers' League at a time other than the last few hours of the closing day. This I believe you will agree should make for a real business session of the league.

I hope you will check the addresses to be given by Dr. E. F. Phillips and Dr. Eugene Auchter. Dr. Phillips is scheduled for Tuesday evening and Dr. Auchter for Tuesday morning. These should be two of the highlights of the convention. Probably no man in the country is better prepared to discuss bee culture problems than Dr. Phillips and the same goes for Dr. Auchter in the realm of orchard pollination.

This convention will mark the first opportunity beekeepers have had to meet publicly the Chiefs of the various Bureaus of the Department of Agriculture having to do in one way or another with beekeeping. It also will be the first time that the Chief of the Bureau of Entomology and Plant Quarantine, the Chief of the Bureau of Chemistry and Soils, the Chief of the Bureau of Agricultural Economics, and the Chief of the Food and Drug Administration have ever attended one of these meetings. While none of these government officials are perhaps at all well versed in the intricacies of beekeeping, they are nevertheless vitally interested in the problems of the beekeeper, and have a good comprehension of how and where beekeeping fits into the larger field of agriculture. The allocation and the administration of funds that the Government spends on beekeeping are the responsibilities of these men. The other speakers on the program are so well known as to require no special mention.

The banquet will be held in the Hall of Nations, one of the largest banquet halls in Washington with a capacity of better than 800 persons, and from word already received as to the size of the various delegations and parties planning to attend from the forty-eight states, the U. S. possessions, and foreign countries, the hall may not be a bit too large. I hesitate to add anything about the lineup of the dignitaries who will honor us on this occasion except to say that the beekeepers will be recognized as they have never been recognized before.

ABJ

Winter Packing

It will soon be time to consider putting our bees in winter quarters. I will now quote my experience in wintering bees for the past five seasons. This method has proved one hundred per cent successful with me.

My bee yards are located at Roberts, Illinois, and vicinity, ninety miles south of Chicago. My equipment consists of standard ten-frame, single wall hives. I place my bees in straight rows facing south. Hives are placed about two inches above ground, and are equipped with telescoped tops, covered with rubberized roofing. Hives are spaced about fifteen inches apart in the row. I also equip all my hives with bee escape boards.

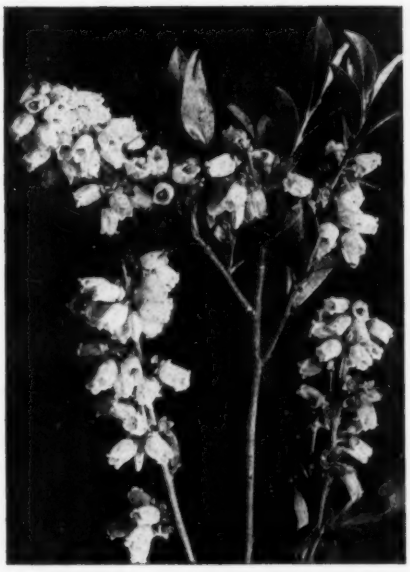
Just before cold weather I partly fill burlap sacks with dry maple leaves, putting in enough leaves so that when they are well pressed down they will make mats four inches thick. When I go to the hives to place these mats I remove the tops, turn upside down and put them in the tops, pressing them well down, remove the bee escape cover and put the top with mat on the hives, and weight it down with several bricks. I always make sure that the tops will telescope over the hives one inch.

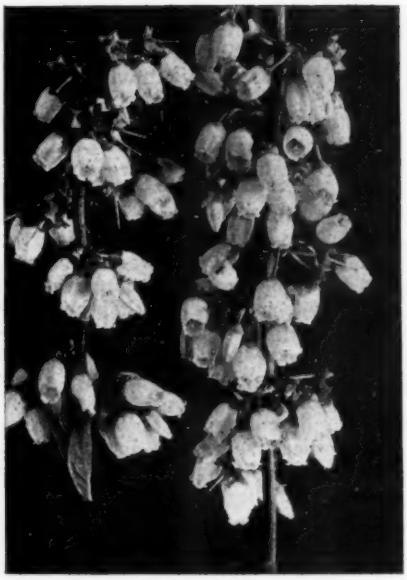
I am now ready to put up my wind break which consists of galvanized corrugated roofing sheets, eight feet long by two and one half feet wide. I place them tight against the hive and let them rest against the ground. I drive small stakes to hold them in place. Then the job is done.

I leave this windbreak up until the hives are ready for supers in the spring. I have not lost a colony of bees during the winter that have been protected in this way in the last five years, including the severe winter of 1935 and 1936, in which one of my neighboring beemen lost all he had which number one hundred. I truly do not know what protection he gave his bees.

It must be the reflection of the galvanized iron, throwing the heat against the hives on sunny days that does the work.

S. Ebert,
Illinois.





The picture at the left shows the flowers of the low-bush blueberry, **Vaccinium pennsylvanicum.** This is the species covering pastures in Maine and northern New England. The nectaries are clearly shown in flowers from which the corollas and stamens have fallen. At the right, the high-bush blueberry **Vaccinium corymbosum** is the species under cultivation in southern New England and in New Jersey.

Low-Bush Blueberry As a Honey Plant

By John H. Lovell and Harvey B. Lovell,

Maine.

THE blueberries cover a very large area in the northeastern states, especially in New England, and it is very desirable that their value as honey plants should be definitely known. They have been reported to yield a large surplus in certain localities, but on analyzing the data we find that the observations on which these assertions have been made are very unsatisfactory and inconclusive. Little or no attempt has been made to distinguish between the nectar yields of the different species, or between that of the blueberries and the huckleberries. We have been unable to find any reports of microscopic examinations of the nectaries.

Of the nineteen species of Vaccinium listed in Gray's Manual for the northeastern states, only seven are blueberries (as strictly defined), five being classified as low-bush shrubs and two as high-bush species.

Occurrence of the Low-Bush Blueberry.

Probably there is no plant, not under actual cultivation, in the United States, which is so abundant and valuable for its fruit as the low-bush blueberry, **Vaccinium pennsylvanicum.** Farmers attempt to improve the natural conditions under which it grows by removing trees and shrubs, and occasionally burning over the land. Most of the wild blueberries come from Maine, Massachusetts, New Hampshire, Michigan, and Florida. According to the census of 1930 there were 13,888 acres of blueberries in Maine, which yielded in 1929, 3,810,806 quarts of berries. The area of plants in Maine was more than twice as much as that in the other four states taken together. About 90 per cent of all the blueberries canned in the world are canned by forty factories in this state. But there is a large area of blueberries in Maine not included in farms, and hence not reported in the census.

In Washington and Hancock Counties where the timber has been lumbered and large areas have been swept by fire, there are 150,000 acres more or less covered with blueberries. Here in the acid, sandy soils of the blueberry barrens the total production of blueberriess in 1926 was 42, 396 bushels, one-quarter of the total crop for the state. As the area of

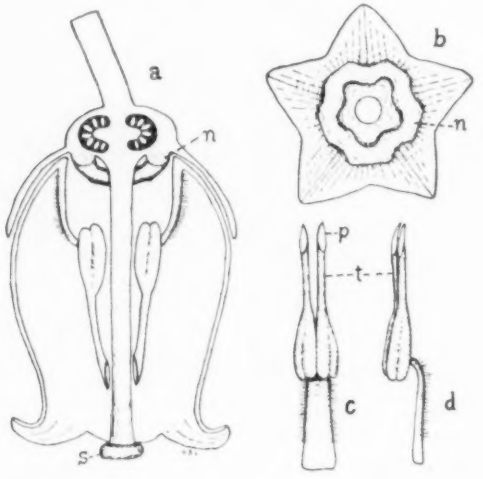


Diagram of the flower of low-bush blueberry: x7: **a,** section through flower; **b,** flower from above, corolla and stamens removed; **c** stamen, inside view; **d,** stamen, side view; **n,** nectary; **p,** pores of anther tubes; **t,** anther tubes.

blueberry land outside of the barrens is very extensive, the total area in the state partially covered with blueberry bushes probably exceeds 300,000 acres.

Production of Honey.

There have been many reports of a surplus of honey from blueberry in Maine, but unless the observations have been made with great care they cannot be accepted as reliable. For example, it was recently reported in a Boston paper that near Lubec, in Washington County, beekeepers found it profitable to rent hives for pollinating the bloom and at the same time secured in the fall full combs of blueberry honey. This statement was doubtless made by a local reporter who had no definite data.

Reliable authorities hesitate to state with certainty that the blueberry yields a dependable surplus of honey. The following letter received from Mr. I. C. Mason of the Maine Agricultural Experiment Station, is very instructive. "The past two or three years we have studied the pollination of these blossoms quite extensively with bees, and by hand, to determine the value of honeybees in the production of more and better fruit. Thus far in some localities we have found many wild bees, while in other fields there were only a few bees. There have been a few cases where beekeepers have had blueberry honey for sale just after the flow had passed. Just how pure the product has been, I do not know. We find from our observations along the coast that the honeybees do not fly very far and the prevailing weather conditions are a deciding factor. We do find that the period of duration when the blueberry can be pollinated successfully is a period of two or three days."

Mr. Allan Latham, of Connecticut, than whom there is no better authority for southern New England has written the senior author concerning the yield of nectar from both the high-bush and low-bush blueberries as follows:

"In my own experience the blueberry has never been very dependable, much of the honey credited to blueberry being actually from huckleberry.

"A generation ago when I had hives at the sea-shore on Cape Cod I used to get from 30 to 70 pounds surplus from blueberries and huckleberries, and during the first decade here I often got good yields. Now for some 20 years there has been no appreciable surplus from either of these sources, and nearly every year in all that time the hives have been no heavier one week after the bloom than they were before it began."

In regard to the low-bush blueberry Mr. Latham writes that it does not produce many berries near his present location, but that 25 miles eastward there are acres of it. "I have heard beekeepers in that locality," he says, "speak highly of it, which would indicate that it is a good honey yielder."

From Mr. Latham's letter it is evident that the quantity of surplus stored at the present time from the high-bush blueberry is very uncertain.

Nectar Secretion and Insect Visits.

In order to determine whether nectar is secreted freely we have made a careful microscopic study of the flowers of the low-bush blueberry, **Vaccinium pennsylvanicum.** Our observations have been made at Waldoboro in Lincoln County where the plants grow extensively and are highly valuable commercially.

The flowers are in short dense racemes and begin to bloom in southern Maine by May 20th. The white corolla, often tinged with pink, is about one-quarter inch long (6 to 7 mm.) and slightly contracted at the mouth. We found around the base of the style a prominent, fleshy, green ring (Fig. 1) on which the nectar is very sparingly secreted. In some flowers no nectar could be discovered even with a binocular microscope, but in others the surface of the nectary was partially covered.

Although there was an apiary a quarter of a mile away, honeybees were comparatively rare on the flowers. Had the nectar been abundant, they would have been present in great numbers. Queen bumblebees belonging to three species (**Bombus ternarius, B. terricola and B. vagans**) were the most common visitors and are beyond question the most efficient agents of pollination. Other insect visitors included the solitary black bee, **Andrena vicina,** and the wasp, **Vespa maculata.**

Bushes from which insects were excluded by wire-screening produced practically no berries although they grew well and bloomed freely. From the large crop of berries produced outside of the boxes, it is evident that the number of insect visitors, few as they were, was sufficient to effect the pollination of most flowers.

Summary.

Although in the wild state the bumblebee is the most important pollinator of the blueberry, the honeybee is also very effective and hives of bees placed in blueberry barrens help to insure the maximum crop. While there is considerable doubt whether honeybees regularly gather a surplus of blueberry honey, they undoubtedly obtain some nectar at a time when the nectar flow is scanty and it may be that under the most favorable conditions they actually do store a small surplus as reported by numerous beekeepers.

—ABJ—

A Good Honey Sign

HERE is a picture of my honey sign and two children, Junior six and Betty five. The first letter of every word in the sign is red, the rim of the sign is dark green and the posts to which the sign is fastened are black. We live in the Wichita Mountains northwest of Lawton.

Paul Wege,
Oklahoma.

Other Equipment for the Honey House

By E. L. Sechrist,

Tahiti.

Honey Getting

SECTION II

Part V

General Discussion: Methods of Extracting and Clarifying Honey.

FOR rapid work, two men are required for each extractor and sometimes a third to help with the uncapping. When two men are at work, one uncaps the combs and places them at a point convenient to the one who is operating the extractor. Unless the work, including caring for the honey after it leaves the extractor, is well organized, a third man is required to bring filled supers, take away empties, look after straining and other odds and ends.

If it is a one-man outfit and one man does all the work of uncapping, extracting and caring for the honey, each piece of apparatus in the honey house, including the draft controls and steam gauge of the boiler as well as the extractor controls, must be placed so they can be seen and used from the operator's position at the uncapping box and extractor. A great deal of work can be done, without undue exertion, by one man in a honey house which has been planned for such operation; but when a honey house is carelessly arranged, and one man must run here and there to see how the various pieces of apparatus are functioning, the work goes slowly and often half the operator's energy is wasted. The operator must be able to see and to control as nearly as possible from one point, the steam boiler, the honey pump and its sump or separator tank, the extractor, the honey heater and strainer and cappings melter, if they are used, as well as the work of filling honey cans, if that is going on at the same time. Honey getting is a job of many details and must be simplified as much as possible.

While it is a good thing to have all the newest and best extracting apparatus, and to handle great quantities of honey in one day, it is still an unsettled question if it is not more efficient to spend a few more days at the work of extracting, using a moderately expensive outfit and a minimum of labor, than it is to use a more costly outfit with more men, for a shorter time. The extracting outfit is used for so few days each season that it seems doubtful wisdom to attempt to cut a day or two off the time required for extracting if much additional cost for equipment is thereby incurred. So often, when work is rushed to the extreme capacity of the plant, some mishap occurs which results in losing time or in honey not being as well and as carefully handled as it should be. On the whole, it seems more desirable to have a minimum of expensive machinery and labor and to prolong the time of extracting a few days.

While a few operators, with their helpers, extract 90 to 100 cases (10,000 to 12,000 pounds) of honey in one day, half that is more common and constitutes a good day's work. With a well arranged plant, one man can remove from the hives and extract twenty cases or more a day without any help.

Wherever possible, the gravity system of handling honey should be used. Whatever may be the condition of honey as regards wax flakes and the usual foreign material present in honey as it enters the tanks from the extractor, the evidence is that proper use of the gravity system, including settling in the storage tanks, will give a finished honey that is clear, clean and free from waste, with no air bubbles, flakes or small droplets of wax finding their way into the 60-lb. cans or other containers, there to rise as "scum." Any kind of extractor may be used; cappings may be drained in a box, dried in a centrifugal drier or in a press, or a cappings melter may be used properly and the result will be good. But a poor cappings melter or a good one improperly used will produce droplets and bubbles of wax that are very difficult to remove by either settling or straining. Settling honey is often satisfactory even though a honey pump has been used, although honey which has been pumped is seldom free from bubbles; and where bubbles are found, foreign material is almost invariably present and difficult to remove.

Honey, as it comes from the extractor, should always be run through a screen of 1/12 or ⅛ inch mesh in a sump or separating tank, so as to remove the coarsest wax, stray bees, bits of wood, etc., before it goes to the storage tanks or honey pump.

Passing the honey through a separating can or tank, either the concentric cylinder or the partitioned style is a good practice although not absolutely necessary.

Very dense cold honey may not settle within any reasonable time but if these separating and storage tanks are located in a warm room so the honey is kept at a temperature of 90 to 100 degrees F., the clearing of the honey proceeds very effectively. Any other method of heating honey unless it be the use of a water jacketed extractor may result in the formation of wax globules which are almost impossible to remove from the honey. These globules are frequently formed from what were flakes of wax from the uncapping knife or some other source, melted in honey, a part or all of which has been heated to the melting temperature of wax, when these flakes become droplets, or hollow globules of wax that persistently remain in suspension, causing cloudiness in the finished honey.

It is not uncommon to see honey heated by a steam coil placed under the extractor can, or even by live steam admitted into this space instead of a coil being used. Another method is by the use of a steam coil or even a garden hose coiled in the space beneath the extractor reel. In all these cases, if extracting stops for a short time, the extractor will soon be almost emptied and I have often seen the small amount of honey remaining in the hot bottom of the extractor or around the steam pipe, begin to boil. A little of this boiled and overheated honey assuredly damages much good honey.

Even if honey is heated to only 100 degrees F. after it comes from the extractor, it should be run into containers and cooled as soon as it has settled clean, otherwise damage may result. Honey that is run into a 1,000 gallon tank and kept there while it cools from 100 degrees down to normal temperature will, as I have

myself witnessed, be injured in color and flavor just as certainly as if it had been made much hotter for a shorter time. The period of time during which honey is subjected to heat is of great importance. Only when honey is too dense or cold to clear readily should it be heated.

It is, therefore, desirable to use several small storage tanks outside of the room in which honey is warmed, or after it has been heated in any way, rather than one large tank. Honey will settle more readily in a small tank and will cool quickly.

Some type of cheesecloth straining bag is frequently hung in the storage tank; or a box type strainer may be used, the honey passing through the strainer after it leaves the separator tank or sump; but under favorable conditions gravity clearing or settling is sufficient. At any rate, gravity clearing will produce cleaner honey than any practicable kind of straining if only straining is used and the honey is canned or bottled immediately without any settling after it has been strained. Almost invariably some scum will rise and this scum should be skimmed off before the honey is canned.

The gravity system of handling and clarifying honey involves little expense and trouble and is efficient. It should be used wherever possible as it will produce fine honey at the least possible cost. Any other system brings into use factors which may make trouble and may injure the quality of honey, besides requiring extremely careful supervision.

It is true that a poor grade of honey may be turned out by the gravity system, but this will be only because the honey is not well enough freed from foreign material and not because it has been damaged in any way. A bottler can take care of honey as it comes from a gravity system and put it into good condition for bottling, but cannot always do this with honey that has been handled in other ways.

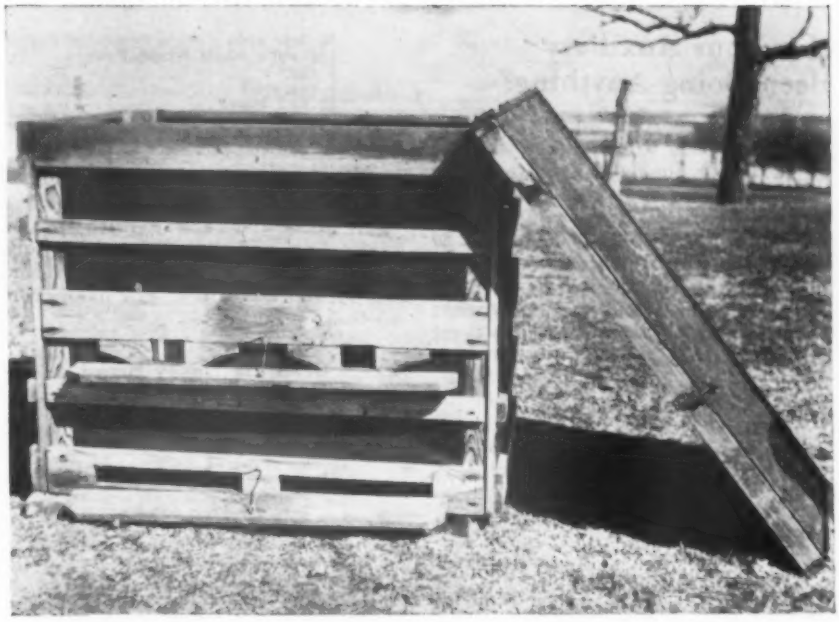
For beekeepers who do not put up their honey for retail trade, it appears to be the best economic practice to use as simple equipment as possible under their conditions, leaving to some central cooperative plant or group, or to some well equipped bottler the task of heating honey and getting it ready for the retail market when it should be of United States Fancy or California Fancy grade which is as clean **as if** strained through standard bolting cloth of 86 meshes per inch.

Producers should, however, have their honey at least as good as United States No. 1 or California No. 1 grade, which requires that honey be as clean AS IF strained through standard 23 mesh per inch silk bolting cloth. Any reasonable settling of warm honey will more than accomplish this requirement.

Winter Cases

By L. A. Stickney,

Minnesota.



HERE is a picture of my winter case used for seven years with no loss. Others have used it with the same results. The bees come out extra strong with no mould.

The case is made with a four inch strip at the bottom, middle and top, with a two inch strip between. It buttons up at the corners with storm window buttons and can be taken down in the flat in two minutes and packed away for the summer. I tack tar paper on the inside of the case. The cap has a two inch rim that shuts down over the case. Poultry netting is tacked on the cap frame, then tar paper. The wire supports the paper.

I can take the cap off the same as a hive in summer, take out the frames, examine the bees, without unpacking. I use a bottom board and have no trouble with mice. A felt mat is on the top hive body or four thicknesses of burlap will do. I use maple leaves for packing and find them the best; four inches on the sides and ends and eight on the top, leaving room to feed with a ten-pound pail if necessary.

I winter in two eight-frame hive bodies so the bees do not need feeding. often I have to extract in the spring. I pack my bees about the middle of October with entrances open like summer. In the fall when the bees are not flying I close the bottom entrance tight so no air will go up through and open a middle entrance which is at the bottom of the top hive body as you see in the picture. This is an inch hole bored through the bottom of the top hive with a box tunnel fastened to the hive over the hole and coming out through the case.

In the spring when the bees need a larger flight entrance, close the middle entrance and open the bottom one, then the bees are fixed for summer. Do not unpack until the bees are too warm and it becomes necessary.

There is no time when packing or protection is so needed as it is from February to about the middle of April in this country. I unpack about May first and there are usually nine to twelve combs of brood, a rousing good big colony ready for the honey-flow.

———*ABJ*———

Section Honey a Luxury

Price is not always the determining factor in whether goods are staple or luxury products. Certain grades of candy, for example, may be cheaper than canned baked beans. But candy will always belong to the luxury group, baked beans never. The same is true of section honey, which will always be a luxury regardless of price. Therefore we need not cut the price below a reasonable figure. The case of extracted honey is entirely different. The wise variety of uses to which it may be adapted, the fact that it is subject to quantity production methods, the maximum of regularity in yield, all tend to make it a stable product, with price an important factor in volume of sales.

W. H. Hull, Virginia.

FOR THE WOMEN

EDITOR, EVA STEWART, NEWPORT, INDIANA

Has Your Auxiliary Been Doing Anything?

THE American Bee Journal is again giving space to the ladies who are interested in honey and its uses. Has your auxiliary been doing anything to help the cause? Have you had any meetings lately or are you going to have a meeting which can be reported? This deparment is to be used by you to let other auxiliaries know what you are doing. Don't forget to send in those reports.

♣

This and That About the Auxiliaries

The Ladies of the Iowa Beekeepers' Auxiliary were pleasantly surprised at their annual meeting by Mrs. Polhemus, president, and Mrs. Paddock, treasurer, who had procured a small metal filing cabinet complete with guide cards and a package of three by five plain cards for **honey** recipes. These attractive cabinets were given to each of the twenty-two charter members.

* * *

The summer meeting of the Women's Auxiliary of the Empire State Honey Producers' Association was held August 10th. Fifty ladies were present and at this time twenty-three sent membership dues to the National Ladies Auxiliary.

* * *

The members of the St. Louis County Auxiliary are keeping a scrapbook for recipes of tested dishes using **honey.**

♣

Seasonal Suggestions

A big problem that confronts the mothers of school-age children is—what shall I put in his or her lunch box?

Children like variety. They get tired of the same kind of sandwiches and the same kind of dessert five times a week. This problem can easily be remedied by varying the bread and fillings for the sandwiches. Make two or three kinds of **honey** bread. The bread will not dry out as quickly as ordinary bread because the honey will keep it moist. Following are some suggested recipes for **honey** bread:

Whole Wheat Honey Bread.

1½ cups bread flour
2 tsp. baking powder
¾ cup brown sugar
½ tsp. salt
¾ tsp. soda
1½ cups whole wheat flour
1 egg
1 cup milk
½ cup **honey**
2 T. melted butter
1 cup chopped dates
½ cup chopped black walnuts

Sift the white flour and dry ingredients together. Add butter, beaten egg, milk and **honey** with brown sugar. Last add the whole wheat flour which has been added to the fruit and nut meats. Bake in a slow oven from 45 to 55 minutes.

* * *

Bran Fig Honey Bread.

1 egg
¼ cup brown sugar
1 T. melted butter
½ cup **honey**
1 cup prepared bran
2½ cups flour
¾ tsp. soda
2 tsp. baking powder
1 tsp. salt
½ cup chopped pecans
1 cup chopped figs
1½ cups milk

Beat the eggs, add sugar, **honey,** and melted shortening. Mix well. Add bran. Sift the flour with soda, baking powder and salt. Add pecans and figs to the flour mixture. Add dry ingredients alternately with the milk to the butter mixture. Bake in greased loaf pan in a moderate (375 degrees) oven for one hour or until baked through.

* * *

Honey Orang Bread.

2 T. shortening
1 cup **honey**
1 egg
1½ T. grated orange rind
¾ cup orange juice
2½ cups flour
2½ tsps. baking powder
½ tsp. soda
½ tsp. salt
¾ cup chopped nuts

Cream the **honey** and fat together until thoroughly blended. Add the egg, which has been beaten until light, and the orange rind. When well blended add the dry ingredients, sifted together, alternately with the milk. Add the chopped nuts. Pour into a greased loaf pan and bake in a 325 degree oven for 1 hour and 10 minutes.

* * *

With the bread question out of the way the next question is the fillings. **Honey** apricot marmalade will prove to be a great favorite with the children and then there are the butters, plum and peach.

Honey Apricot Marmalade.

Pour boiling water over the dried apricots. Let stand long enough to soften them a little. Drain and grind in a fine food grinder. For each cup of ground apricots add one and one-half cups of **honey.** Blend thoroughly. Put the mixture in jars and let stand for two weeks before using.

* * *

Honey Plum Butter.

Just cover plums with cold water. Cook slowly until well done, run through the colander. Measure and to each cup of pulp allow ½ cup of **honey.** Cook very slowly until thick and clear. Preserve in sterilized jars.

Remember, there is a greater tendency of burning and sticking when butters are made with Honey. It is better if the butters are cooked in the oven (use slow oven 275 degrees to 300 degrees F.) and only an occasional stirring is necessary. Fruit butters made with **honey** develop finer flavor after aging for two months.

* * *

Honey Peach Butter.

It is not necessary to cook the peaches before putting them through the colander. Follow same process as is used in making plum butter. Spices may be added if desired.

* * *

The dessert question is not so big. Fresh fruit is advisable but if it isn't available there are numerous recipes for cakes and cookies using **honey.** Some of the favorites are:

Honey Date Bars.

Mix three eggs well beaten with one cup **honey.** One teaspoon baking powder sifted into one cup flour (half white flour and half all bran or all whole wheat flour may be used; add pinch of salt, one pound chopped dates, one cup whole nuts. Bake in moderate oven about forty-five minutes in long flat tin (mixture spread ¼ to ½ inch thick).

Wrap in waxed paper, pack in cake box and age two weeks. Cut in strips and roll in powdered sugar before serving. For immediate use, add ¼ cup shortening to the mixture before baking.

* * *

DON'T FORGET — for that Hallowe'en party serve **Honey Pumpkin Pie.**

1½ cups steamed and strained pumpkin
1 cup honey
1 tsp. cinnamon
½ tsp. ginger
½ tsp. salt
2 eggs
1 cup milk
½ cup cream

Mix ingredients in order given and bake in one crust. Garnish each piece of pie with a mound of whipped cream with **honey** in its center.

A Simple But Effective Winter Entrance

By Dr. Karl Brunnich,

Switzerland.

SINCE the introduction of movable frames the question of wintering has become very important. The celebrated apiarist, von Ehrenfels (1767-1843), said that good wintering is the masterpiece of bee management. I am sure that here in Europe, where beekeepers with large numbers of hives are very rare, the winter losses represent a staggering amount. And from what we read in the bee papers, the same thing is to be noted in the United States. In the bee journals a great deal of space is given over to the problems: winter packing, position of the hives, and especially indoor or outdoor wintering. But I have noticed that little attention is given to the influence of the flight hole. Top entrances have been discussed only a little and have just begun to arouse the interest of the bee men.

Certainly there are a number of important factors which influence wintering, but I think that the positive protection of the hive entrance ought not to be undervalued. There are many disturbances which come from there—light, air currents, birds which molest the inhabitants of the hive, etc. We all know how detrimental such disturbances are, as they cause an increase in the consumption of stores and its consequence—dysentery. For this reason men have tried to create, especially in Germany, an entrance with an efficient protection. But in what does such a protection consist?

1. The bees must be able freely to leave the hive.

2. Every air current must be kept out, so that even violent storms roaring around the hives may not trouble the bees. Currents of air are as injurious to bees as to men.

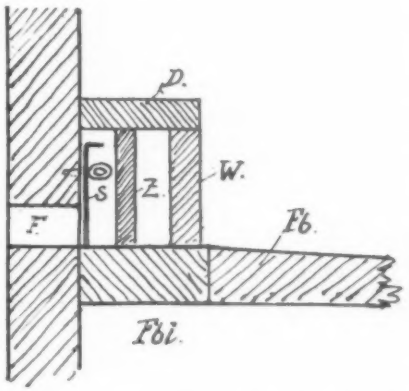
3. It is desirable that all light be kept out, for it goes without saying that bees are quieter in complete darkness than where light is admitted.

4. The winter entrance of a good veranda must be as near as possible to the summer entrance, and the outer appearance of both should be the same. A fault of the majority of all existing verandas is the great distance between entrances and their different appearance. Therefore in winter many bees do not find the new flight hole and become chilled.

5. A veranda ought to be cheap.

Years ago I began to study the matter and I believe that now I can offer a veranda which conforms to all the requirements. It consists of a long box, from 1½" to 2" high, of about the same depth, the length depending on the width of the entrance. The box is open on the two long sides.

We have at our flight holes slips (S, S') which are superfluous.

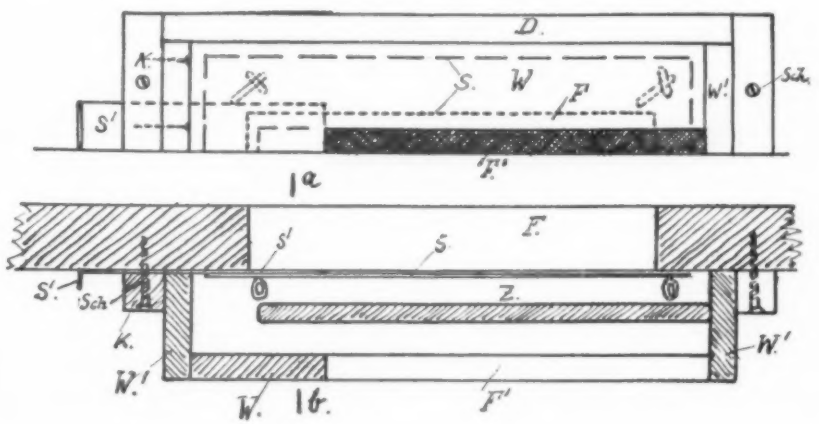


Above—Cross section, from the side. Below—(At top) Diagram from the front. (At bottom) From above.

F is the entrance of the hive; F' is the entrance of the box, a little less than ⅜" high, in order to prevent the mice from intruding.

Inside the box, which is placed against the front wall of the hive, is a partition wall, Z, which partially divides the inner room into two compartments. This wall leaves a space of about 1½" to one of the lateral walls, W', W. The figure shows clearly that the bees coming from their entrance, F, to the exterior entrance of the box, F', must make a circuit around the end of the partition wall.

The exterior of the box is painted like the front wall of the hive. The interior is colored black, in order not to let penetrate any ray of daylight. The box is fixed to the hive by means of the ledge K, either with two screws or with hooks. Last autumn I fitted some of my hives with these simple verandas and on fine days I could observe that the verandas did not hinder the bees at all in going and coming. There is no doubt that the bees are quieter and consume less than with the open entrance, and I am sure that the veranda guarantees a better wintering in cellars as well as in the open air. This vestibule is easily fixed and removed and the bees rapidly accustom themselves to it. The little cost it involves will soon be recompensed by better wintering and fewer winter losses.



EDITORIAL

Are the Markets Manipulated?

A letter today from one of our very good customers and a large beekeeper expresses the belief that it does very little good to get opinions on the markets since such opinions are put to naught through manipulation and through bearing down the market in one section so as to cut the price in another.

The writer states that when he was much younger, he used to believe that the law of supply and demand had everything to do with the price of honey.

While we hold no brief for the beekeeper who advanced this argument, still we do know that supply and demand are not always able to influence the market of honey or other products as they, perhaps, rightfully should.

Bear in mind, however, that whether one is a beekeeper, a packer, a retail merchant, a producer or a consumer, it is usually desirable to purchase materials at as low a rate as possible commensurate with quality.

Naturally, one buyer cannot see himself placed at a disadvantage over someone else who has purchased at cut prices as low as possible. This means that every buyer is actuated to buy as low as possible to protect his own selling price and, therefore, many times we have prices which start at least much below what is justified.

Naturally, such conditions arise particularly in the beekeeping industry where it is not possible to congregate the beekeepers for a thorough discussion of the markets and the selling prices for honey.

Furthermore, many beekeepers are, through necessity, forced to sell early and thus to sell at a price out of proportion to value.

On the whole, however, we believe the packers and buyers sof honey are just as fine a lot as the producers and that there should be some way whereby one could be protected against the other in order to assure a price commensurate with supply and demand.

Most certainly, the supply of honey this year does not look large, probably much less than a year ago.

On the other hand, the demand should be as large if not larger, owing to the increased employment everywhere.

Will our beekeeper who complained as above still be able to say that the markets have been depressed beyond any reason, and that there cannot be any hook-up with supply and demand?

—ABJ—

Predatory Insects

A Utah friend writes to inquire how to control yellow jackets, saying that they are present there by the million and have killed several colonies of bees and bothered others to the extent that they are not storing honey.

Beekeepers of America are fortunate in that they are seldom annoyed by predatory insects. Occasionally such a report comes as the above. In some Texas localities robber flies at times become serious and Florida beekeepers sometimes find the dragon flies or mosquito hawks killing bees. Such incidents serve to remind us how few localities offer problems of this nature.

On the other hand it is not so easy to offer a remedy. In neighborhoods where such predators are abundant there seems to be but little relief except to move the bees. It often happens that the period of annoyance will be brief and the predators will depart or their numbers will decline to the point where they are no longer serious.

Such was the case in the winter of 1935-6 when our cooperative experimental work was transferred to the lower Rio Grande Valley. For a few days the dragon flies congregated in large numbers in the vicinity of the hives and there was real anxiety as to what might happen to the young queens which might take flight. However, the dragon flies soon disappeared and there was no further trouble from that source.

In the case of yellow jackets which have permanent nests the annoyance is more likely to continue. Yellow jackets and bald faced hornets in most cases are beneficial in their food habits, since they kill large numbers of house flies and other pests. It is only on rare occasions that we have complaints of loss of bees. When such losses do occur about the only remedy is to locate the nests and destroy them.

—ABJ—

The National Conventions

Greatly increased attendance has followed the change of time of meeting of the national organizations. When conventions are held in the dead of winter it is difficult to find much attraction in a trip outside the convention itself. In October one is attracted by the opportunity to do some sight seeing at the same time.

The success of the Valdosta meeting demonstrated clearly that autumn is the best time for such meetings. With similar success at Detroit and San Antonio there is every reason to continue the fall meetings. Every indication suggests a fine attendance and a successful meeting at Washington this month.

—ABJ—

October

October brings the end of the season's activities and starts the preparation of the work of the following year. The honeyflow is over, the crop removed and we are able to cast up accounts to determine whether it has been a season of abundance or one of meagre returns.

October is the time of harvest and fulfillment. Frost tints the leaves with gorgeous colors and reminds us to hasten our preparations for the coming of winter. Every colony should have had final attention, all feeding be done and only the winter packing or cellaring of the bees remain to be attended to. Even the packing is better done in October if circumstances permit, as the less disturbance the bees are given after the honeyflow stops and brood rearing is done, the better for them.

Fortunately for northern bees the end of the flowering season brings chilly weather which encourages quiet whereas in the South the insects often wear themselves out in useless searching when nothing is to be found.

James Whitcomb Riley was in the mood to feel the mellowness and ripeness of October when he wrote his poem, "When the frost is on the pumpkin and the fodder in the shock."

—ABJ—

Natural Foods

One would expect that the honey producer must eventually profit from the spread of propaganda urging people to return to the use of food in a more natural state. So many physicians and others are warning the public against the danger of depending too much upon devitalized foods that there appears to be a definite trend away from their use. Honey appeals to the individual who fears that refined sugar has lost something which the body requires. The greatest drawback to its general use is the inconvenience of handling such a sticky product.

One of the reasons for the great popularity of refined sugar is the fact that it is so easy to use.

Value of Bees for Pollination

There has been much discussion of the relative value of the service which the honeybee renders in pollination and the honey which she brings to the hive for her owner.

Some speakers have contended that for every dollar the bee earns for the beekeeper she earns two for his neighbor on whose farm she forages. Occasionally one contended for a higher amount and said that when the beekeeper received a dollar in the form of honey, the fruit grower or farmer found five dollars additional in the form of fruit or seed as a result of the bee visits.

In a radio address recently, George H. Rea was given as authority for the statement that the bees paid an even greater return, probably ten dollars to the farmer for one to the beekeeper. However, in all cases the statements have lacked specific authority and left the impression that they were mere guesses. Usually that is what they have been, since nobody knew for sure.

Now comes Prof. F. B. Paddock in the recently issued Report of the State Apiarist, for 1936, to tell of some experimental work which attempted to learn the facts. In this particular case where a check was made of yields under similar conditions with and without bees, it was found that for every dollar the beekeeper received in the form of honey the fruit grower received fourteen in the form of fruit.

It would seem that wide publicity should be given to such work to acquaint the public with the value of the services of the insects to others than those responsible for their care. If the beekeeper who invests his money in hives and equipment and gives his time to the care of the bees gets only one dollar out of each fifteen that the insects earn for the community, the rest of the world should be informed of the facts.

—ABJ—

Honey in the Health Magazines

Honey is beginning to receive attention in the food and health publications. When we remember the remarkable increase that has come in the demand for such items as carrots, liver and spinach as a result of the discussion in such publications, we may well expect similar interest in honey if the editors continue to stress its value.

The following is taken from a short article in the July number of "Nature's Path" which has a wide circulation among those who are seeking a more natural way of living:

> "Honey is an energy-giving food which requires practically no digestion but is quickly absorbed and utilized in the body.
>
> "Because of the mineral content, honey has an alkaline reaction in the body.
>
> "According to the Department of Nutrition, Teachers College, Columbia University, honey has about fifty per cent more sweetening value than the best cane molasses. The sweetening agents in honey are principally dextrose or grape sugar and levulose or fruit sugar. These sugars are quickly assimilated in the body without going through a process of digestion."

This article also suggests honey as a satisfactory supplement to milk in infant feeding.

The qualities mentioned in the article quoted were once very generally recognized, but have been lost sight of by the mass of humanity in recent years as manufactured sugars have so generally replaced it in the market. Beekeepers have continued to extol the merits of their own product, but they were few in number and had but little influence in competition with the great volume of advertising which was used on behalf of the competitors of honey.

The prosperity that has come to the products which have been recommended in the health publications as having special dietetic value has been such as to demonstrate that the public is really interested in the matter of correct foods and to lead us to hope that at last honey may soon return to its former popularity as an article of daily use in the average home.

The Pioneer Period

One has but to read the "Lives of Famous Beekeepers" which have been appearing in this magazine at intervals for several years to realize in what a different world we are now living. There were many opportunities for wide awake individuals a generation ago at a time when industries were being born.

Opportunities for leadership today are of a very different kind. Beekeeping is a going business now with little need for equipment with which to work. To the present day leader is left the opportunity for improvement in marketing, or betterment in details of practice, but the foundations are laid.

In that day the demand for honey was well nigh universal, while today it is regarded as a luxury in which a large portion of our population is uninterested. When we look over the present-day field we cannot but wonder whether anyone in the present generation is rendering a service which will cause him to be remembered in the years to come as Huber, Langstroth and others of the pioneers are remembered.

—ABJ—

The Cooperative Experiment

Several of our readers have asked that we make frequent reports as to the progress of the experiment with disease resistance. The fact is that there is little to report since the full story of the first two years' work was told by Dr. Park in the January issue.

The first year it was determined that an occasional colony is resistant to American foulbrood. The second year it was shown that this character is inherited by a portion of the offspring of queens heading such colonies.

To breed a strain of bees which can be depended upon to resist disease successfully is a long-time job. No one knows how long it will take, but the fact that success has followed similar attempts in other fields gives confidence that it can be done.

A serious study of all the factors entering into the problem has been undertaken in the Bee Culture office of the United States Department of Agriculture. Any announcement regarding the methods followed or the progress of their work should come from Mr. Hambleton under whose direction the work is carried on.

At the cooperative station at Atlantic, Iowa, supported jointly by this magazine and the Iowa Agricultural Experiment Station, testing is continued as in previous years. A much larger number of colonies are under test and it is hoped that this season's work will give some hint as to the percentage of inheritance of disease resistance. Queens heading colonies under test this season are daughters of those showing resistance in previous years. They are mated to drones of similar parentage.

We do not anticipate that there will be very much that is new to tell about this experiment from month to month.

—ABJ—

Extremes

The weather, always a common topic of conversation, has received more than usual attention during the past two or three years. We have heard so much about heat and cold, flood and drought that one begins to wonder what to expect next.

We read that during the winter of 1935-36 the Midwest experienced the most severe and prolonged period of cold in 117 years and that the following summer was the driest on record with one exception. We learn also that the snowfall during the same winter was the heaviest in forty years and that the following summer temperatures set a high record for continued extremes for 117 years.

This season opened with floods of unusual extent and severity, contrasted by dust storms over a wide area. Rainfall was unequally distributed, with some areas abundantly supplied and others not far distant suffering from drought.

The indications are that such extremes are not favorable to honey production, for reports indicate light crops generally and failures in many places.

Always optimistic, the beekeepers are making the best of the present situation and looking forward to better days ahead.

Clean Packing Is an Old Problem

The problem of putting out a clean product, as presented by Messrs. Cookinham and Marsteller, is not confined to honey, nor is it new. There was a time not so long ago when butter, made and packed chiefly on farms by the individual producers, was of distinctly uncertain quality. Some of it, perhaps most of it, was good. Most of it was at least edible. But one could never be sure. The public bought butter with caution and, as a rule, as little of it as possible.

Maryland tobacco growers were recently confronted by a like situation. For a long time the French government had been buying the Maryland crop, but was getting fed up with hap-hazard and sometimes dishonest packing. Tobacco is packed in hogsheads for this trade. There are many small farms in Maryland. Too often, when a farmer did not have enough of the grade indicated to make a full hogshead he filled out with whatever he happened to have. Dealers argued that they could not afford to unpack and re-grade, to which the customer replied merely that unless he could get a clean, honest pack he would take his business elsewhere.

Back in colonial days the government found it necessary to establish warehouses where all tobacco was inspected before being shipped. A man's oath regarding its condition might be accepted—provided the oath was supported by his bond. It is notable, however, that shipments bearing the name, "George Washington, Mt. Vernon," were passed without inspection, not because he had political influence, but because everyone knew his product did not need inspection. It seems that, whatever the facts regarding his cherry tree statement, his honesty was no myth. And to honesty he added efficient management. Some beekeepers are like that.

W. H. Hull,
Virginia.

———*ABJ*———

The Bee

In a body so little who scarce can imagine
Joints that can move so actively, wings
Stirring so nimbly, senses that utter
So sharp a crying, such deep-reaching stings.

What of all creatures is wiser in this respect—
Wiser or better instructed than she?
Where is the artist, the geometrician—
Artificer who can compete with the bee?

—Adapted from Samuel Purchas.

By Walter H. Hull,
Virginia.

Slogans—Take Your Pick

Some time ago we asked for suggestions for honey slogans. Here they are:

"Sweeten with Honey."
Stefan Kumor,
New Mexico.

"Sweeten with Honey, every day in every way."
G. L. Hankammer,
Missouri.

"Sweeten it with Honey."
Charles Meier, Jr.,
New Jersey.

"Sweeten it with Honey."
Nathan E. Walsh,
Arkansas.

"Sweet' it with Honey."
"Only honey is as sweet as honey."
Opie Cloonan,
Missouri.

"Be sweet with Honey."
Henry E. Lanne,
Louisiana.

"It's better when sweetened with Honey." Gus H. Polst,
Missouri.

"Flavor as you sweeten."
American Honey Institute,
Madison, Wisconsin.

"Get the Honey Habit."
Mrs. Henry G. Montie,
Connecticut.

"A Health Food."
"By Sweet-en-it-Honey."
"Buy Sweet and Eat Honey."
Stefan Kumor,
New Mexico.

"Eat it with Honey."—from daughter of Walter J. Tietjen, Tampa, Florida.

"Taste it with Honey."
Miss E. Grace Pye,
Saskatchewan.

"Eat honey, the germ killer."
Jno. F. Van Syoc,
Iowa.

"Honey for Health and Wealth."
Mrs. George Champagne,
Washington.

"More Honey: Better Health."
Wm. M. Weber,
Indiana.

"Better Food and Better Health with Honey."
"A Better Day the Honey Way."
"Pure Honey — Nature's Perfect Sweet."
"Pure Honey Makes Life Sweeter."
John S. Sholl,
Delaware.

"Bee Honey Wise."
"Use Honey, There Is a Reason."
"Had Your Honey Today?"
"Honey Has It."
"Bring Them Honey, What Could Be Sweeter?" C. Smola,
Ohio.

"No Richer Gift Has Autumn Poured." (No name given),
Wisconsin.

Will Carniolans Reduce the Cost of Production?

I am located on the Menominee River, in Menominee County, Michigan, about fourteen miles from town, near a hydro-electric plant, a mile and a half as a bee flies, from the nearest farmer. The pasture for bees is very poor and there are no raspberries to help out.

When I sent for my first Carniolan queen, I did so more for curiosity than anything else. My sentiment had been all for the Italian, because the bee books and magazines gave that race preference over any other. For two years I paid no attention to the Carniolans except to put on supers and take them off when they were full. However, it gradually dawned on me that the Carniolans were making more honey than the Italians, so for the last few years I have paid attention to details and have kept a record of the Carniolan colonies.

For several years I have found that when I take 100 pounds of honey from the Italians that the Carniolans would yield 125 or 150 pounds. For this superior production, there was a reason. I looked for it and found it.

In the spring of 1933, as soon as the willow came into bloom, the Carniolans began immediately to work on it, while the Italians remained in their hives. On the nineteenth of April I took all of my colonies out of their winter cases and on the twenty-fifth I looked through them. The Italians had about six frames of brood, part of a frame of honey and considerable pollen. There were no young bees.

The Carniolans had an average of twelve frames of brood, one frame of honey, a large amount of pollen and a considerable quantity of young bees. The fresh honey was from willow and maple.

The summer of 1933 was dry, and what honey I got was in the hive before the first of July. Among the Italians, I made an increase of 2/7 swarm per hive and I got no honey from them. I increased the Carniolans one swarm per hive and got an average of eighty sections of comb honey.

During the autumn, the Carniolans worked a good many days at the asters when the Italians were not flying at all.

When, in the spring of the following year, the same conditions were repeated, I made up my mind that I would like to raise some Carniolan queens and increase the number of hives of Carniolans; so, on June 1, I moved the Italians fourteen miles away where there was a lot of sweet clover—really excellent pasture. They produced 171 pounds of extracted honey and made an increase of 1/7 swarm per hive.

I ran the Carniolans for increase and for young queens. The young queens were failures, but I made an increase of 1 2/3 swarm and got 133 pounds of extracted honey per hive, spring count.

I have come to the conclusion that Carniolans will help to reduce the cost of production, at least in my location. They begin to rear brood earlier and they rear more of it. They come to a peak more quickly than the Italians and are ready for the flow when the flow is ready for them. They begin to work early in the morning and continue late into the evening. They work in a lower temperature and are more gentle than the Italians.

I agree that the Italian bees are very good bees and I think a lot of them, but, at the same time, you can imagine what I think of my Carniolans. In a different climate they may not work as well as they have for me.

Walter Joslin,
Michigan.

—ABJ—

Full Count

A fellow apiarist gives this as his own experience: The orchard was too wet for a truck (he says) so we were using wagons to collect the hives—two of them, as we were pressed for time. When the last load came in I counted the hives and found one short. Counted them again, and a third time, and still there was one short.

"Are you sure you got them all?" I asked the driver of the other wagon.

"Yes, sir," replied the boy. "Every one."

"But I'm one short here. Are you positive you got them all?"

He studied over this. "Well, one fell off back there," he said at last. "We didn't stop to pick it up. Maybe that's the one that's missing."

That seemed quite possible, so we went back over half a mile of rough orchard and picked it up. Sure enough it was the missing hive.

W. H. Hull,
Virginia.

Packing With Paper and Sawdust

After experimenting with packing for three years, I find colonies packed went through the winter better, with smaller loss, smaller consumption than those not packed.

So in 1931 I decided to pack my sixty colonies with paper and sawdust. I had been told I could buy strips which are removed from refrigerator cars at division railroad yards eight miles from where I live. These strips were eight feet long, 1½ inches wide and ¾ of an inch thick.

I bought a truck load of 2000 for $2.00 and gave $2.00 to have them delivered. I then cut them up into lengths of 25½ and 24 inches.

A piece of threaded felt tar paper 26½ inches by 24 is placed over two of the 25½ inch pieces of the refrigerator strips, one at the top and one at the bottom and a 24 inch piece was nailed across the side of my paper and onto the 25½ inch pieces. Then nail three more 24 inch pieces evenly spaced through the middle. I have one side of my case done. By using one on each side and the back and one 25½ inch by 18 in the front, overlap the sides on the ends and nail at the four corners with a No. 6 box nail and the box is complete.

Finally I take two blocks 3 inches wide and 5 inches long by ⅞ inch thick and nail a piece of galvanized tin the width of my blocks and as long as the inside width of the bottom board and place these blocks with the tin up at the hive entrance.

The case is then placed over the hive and the front side of the case allowed to rest on the tin and blocks to keep the packing from dropping down and closing the entrance. The packing is finally put in until the case is well rounded so as to drain the water off and then the cover of tar paper is put on.

The sawdust used as packing should be absolutely dry. When I remove the cases, I leave the sawdust around the hive as it keeps the grass and weeds down in summer. The cases are knocked apart and stored until the next winter. These can be used for several years and only cost me eight dollars for the sixty cases. One man can put them together and pack in a day easily.

Harry Canfield,
Illinois.

—ABJ—

Michigan Beekeepers—Please Use Care

I feel that it is my duty to inform some of the beekeepers throughout the state about a condition which was uncovered in August, this year, and is an example of what comes from what some beekeepers are doing with

(Just turn the page, please!)

American foulbrood colonies. I want you to know these facts first-hand and I am sure that the great majority of beekeepers will do all in their power to assist us in controlling such situations as I will relate.

Thursday morning Mr. Sherburn, Mr. Brodock, two of our inspectors, and myself, set out to find the source of an outbreak of American foulbrood in New Haven Township, Shiawassee County. After some six hours' searching through woodlots, etc., and inquiring of farmers, we found an unregistered apiary of 74 colonies which, after inspection, proved to have American foulbrood in every colony. We forced entrance to the honey house and 35 hive bodies of diseased and emerging brood, along with extracted honey and cappings, were found.

Thursday evening, after completing the inspection of the colonies, we gassed and burned all bees and combs and scorched the equipment in the regular manner, which took us most of the night. We continued the search Friday morning and in the far end of the same woodlot found supers of empty combs containing scales along with packing material, which indicated that a hospital yard had been located in this location previous to this year. We could not obtain the name of the owner of these bees from anyone in the neighborhood. The apiary nearest to this location, which was only three-quarters of a mile, showed 13 American foulbrood colonies out of 14, with similar outbreaks within flying distance.

I am sure you will agree that we as beekeepers and inspectors must unite our efforts and cooperate to the fullest extent in order to curb such malicious and purposeful spread of disease among our bees. Any information that any beekeeper can give us, as inspectors, will be greatly appreciated and I know that you will cooperate with us wholeheartedly in these matters.

John B. Strange,
Commissioner.

Vester E. Mock,
Chief Apiary Inspector,
Michigan.

—ABJ—

Yakima Has Light Flow

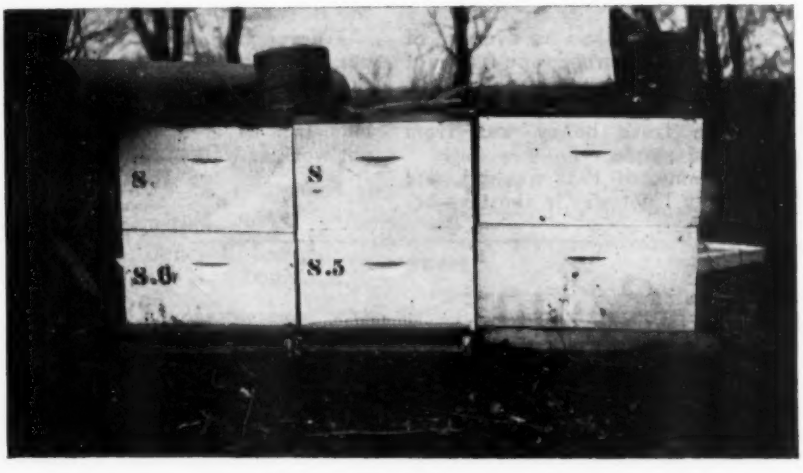
Unusual weather conditions resulted in the lightest honeyflow in the Yakima section in many years. The spring was late and cold, with heavy rains in early June, almost unkown in this irrigated section. The weather was chilly.

Added to that, growers cut the second crop of alfalfa before it blossomed. J. B. Espey, of the Valley, said he started extracting a month later than usual. I. L. Neill,
Washington.

Paper and Twine for Packing

THESE two pictures show the arrangement of colonies and materials used by Newman Lyle, of Sheldon, Iowa, for packing bees for winter. A tar paper loop is placed around these colonies arranged in groups of three as shown in both pictures with suitable boards over the front of the entrance to make a tunnel. The paper is held about the hive with staples or lath, the loops being large enough to allow putting straw, leaves, or suitable packing material between the paper and the hives and well over the top. Then a cap of paper is used folded into place and the whole pack held with binder twine placed lengthwise and across the top down to staples or nails at the bottom. Holes are cut through the paper into the tunnels and they are always ready for winter.

This method of packing is common in groups of two or three or singly throughout most of the middle west and it is a very satisfactory way to winter bees. The paper, the twine and the packing material will run anywhere from 15 to 25 cents per colony depending on the cost of labor and mileage. In the upper picture a shallow food chamber is left on one of the hives. These hives are Modified Dadant. Usually there is enough food in the hive body without the addition of the food chamber. In the lower picture the hives are two-story ten-frame packed for winter with the upper hive body full of honey. Also a mouse guard of coarse hardware cloth is used on the entrances as can be seen in the middle hive in the lower picture.



—ABJ—

Death of George Saxon

George W. B. Saxton, of the Yakima Valley, died at Growmore August 30. Besides being a resident of the Valley for nineteen years, he had been in charge of the bees at the great Congdon orchards owned by eastern people. I. L. Neill,
Washington.

Asters

ACCORDING to Pellett's "American Honey Plants" there are more than two hundred species of asters recognized, of which at least one hundred twenty-five are found in the United States. "Every American beekeeper may be sure that his bees are within reach of at least one species of aster, and, in most localities, there are several species."

These two pictures taken at Hamilton are very good ones of the white field aster, or frost flower (Aster vimineus). It is common from eastern Canada to Minnesota, and south to Arkansas and Florida. It is a late bloomer and a heavy honey yielder. Some years in the middle west surplus supers are often obtained from the frost flower. In 1935 it bloomed until October and supers were put on as late as the fourth of October to get the last of the aster, with brood nests already well filled for winter. The honey that year from this source was heavy and well ripened, and made good winter stores.

Aster honey is often blamed for poor wintering. Often the bloom of aster ceases only with frost and so much of the late gathered honey remains unripe and does cause dysentery when used as stores. It is the first consumed and the last honey gathered. To remedy the trouble of unripe aster honey, a ten-pound pail of syrup fed late to the bees and stored where the last brood emerges causes the aster itself to be used later in winter and so the accumulation from it when consumed by the bees does not occur at a time when bees are not able to fly and so prevents any loss through dysentery.

"The Trappist Monk"

This is the title of a book giving the history of the Trappist order by H. J. McDermott under the imprimatur of Henry Moeller, Archbishop of Cincinnati. Concerning the Trappists, it has been said that they maintain a silence so unbroken that they forget how to talk, a really far-fetched statement, and yet indicative of the false impressions often held concerning the Trappists. The life of the Trappists is described in this book.

The order originated at the Abbey of La Trappe in Perche. In 1817, the Abbey of Melleray in Brittany was established. Later, because of trouble between France and England, Mount Melleray was established in Ireland about three and one-half miles northward from Cappoquin. Later, in this country, New Melleray Abbey was founded at Dubuque, Iowa. Most of the book has to do with New Melleray Abbey.

In speaking of the diet of the monks, H. J. McDermott says, "Advocates of a vegetarian diet should find many arguments in the health and longevity of the average Cistercian Monk, nor could they disapprove of the light supper of whole wheat bread, honey, butter and tea, with sugar and milk, placed on the table."

In the fourth chapter of Part II Father John relates the derivation of the word "Melleray." "It is derived thus," he says. "In the year 1145, two monks of Pontrond Monastery in Anjou were sent in search of a fitting place to erect a new monastery; being come to the Village of Moisne in Brittany and being unkindly received there, they were forced to take shelter in the forest. For their resting place they selected a hollow tree in which wild bees had previously deposited an immense comb of honey, thus providing them with the food that the peasants had denied. From this circumstance, the name of the Abbey is derived—Mellis alvearium, Mellearium, Melleray."

———ABJ———

Bulletin on Plant Poisoning of Bees

"Plant Poisoning of Bees" is the title of a new bulletin by C. E. Burnside and G. H. Vansell recently issued by the Bureau of Entomology.

Much has been written about the poisoning of bees by nectar of California buckeye and later investigations indicate that similar effects may be due to nectar from several other plants. Not much is known about it as yet but these men are making a study of all suspicious cases in an effort to clear up the trouble.

Among the plants under suspicion are yellow jessamine, loco, western false hellebore and southern leatherwood.

Honey Breads Grow Apace

Extending the field of honey in the home-cooked as well as the baker's loaf, several distinctive new honey breads are being rapidly popularized among housewives this summer. Such recipes for home-baking of the honey loaf follow in the wake of exploitation of new honey breads by enterprising bakers in several sections where honey reaches better than average consumption levels.

Trilogy of effective honey loaves, each distinct and definitely delightful for the socialites and others entertaining at tea parties and desirous of having something different in the way of tea things and fixings for the amenities of bridge, luncheon, social entertainment, or simply the amenities, were spotlighted for home guests of hostesses, as the entertainment season was in full swing. And they have been something to keep ovens aglow in many homes.

One cup of honey is used for each of these distinctive types of honey breads—the honey-date bread, the orange-nut bread, honey-flavored, and well honeyed fig bread. For this latter there is, of course, a half cup of figs and a half cup of raisins; but a cup of honey makes the loaf, along with sweet milk, eggs and other minor ingredients.

In the orange-nut bread, the orange juice and grated orange rind is outweighed by the brimming cup of the product of the bees. And for the honey-date bread, there are chopped dates, egg and walnuts. The cup of honey creamed with shortening however, does the trick in making the date bread stick.

So the cup of honey is the mainstay for the staying qualities packed in the loaf—giving it the virtue of scarcely ever becoming even as senile as the "day old" loaf of run-of-the-mine bakery shops, since honey makes the bread moist and fresh to the last morsel.

"Fresh to the last crumb" may well be the slogan of these honey loaves, since this major ingredient is being used to an ever larger extent to keep the bread from drying out and becoming stale, flat and crumbly. The cup of honey "does things" to the health and happiness loaf for the hostess—giving her unusually tasty loaves that provide a host of dainty open-faced tea sandwiches for Milady. They are coming to be the accompaniment of many a bridge party or afternoon social.

C. M. Litteljohn,
Washington.

What Advertising Is Doing For Some Food Associations

By Ruth Cooper,
Tracey-Locke-Dawson Adv. Inc.,
Texas.

[This paper was read before the American Honey Institute session of the San Antonio Conference, November 24, 1936.—Ed.]

NINE out of ten women can tell you why they eat oranges—why the California Fruit Growers' Exchange have changed the habits of a nation. Nine out of ten women can give you specific reasons for using not pineapple, but crushed pineapple, sliced pineapple or tidbits. We are quite pineapple conscious! But few of us know much about honey. Were it not for the consistent efforts of Mrs. Jensen, none of us would know anything about honey cookery—her Honey Helpings is one of my most cherished reference books. The fact remains, though, that not enough women know anything about honey. There are in this room several of you men who could remedy the situation.

All of us can remember when prunes were part of the boarding-house creed. But look at them today. Have you priced them recently? They are no longer the economical dish. They have been glorified. You will find them on the menus at Newport as well as San Antonio! With a $150,000 appropriation two years ago they started national advertising which is being continued this year.

What about liver? Look how the meat packers are cashing in on what was not considered very elegant food less than ten years ago.

You might be interested to know more about the citrus account. The California Fruit Growers' Exchange of Los Angeles is a leader in cooperative advertising. Their appropriation for this year is $1,518,000 with orange and lemon prices forty-six per cent above 1935 levels and reports are that grapefruit prices will be satisfactory. This Exchange has been advertising for twenty years and in recent years putting greatest emphasis on health—health in winter, cooling qualities in summer; beauty—cosmetics value; and flavor. They promoted a co-operative advertising motion picture release to be shown to 2,000,000 home economic teachers, students and home-makers within the next two years. This film was shown for the first time at the Home Economics Convention in Seattle, Washington, in July. The firms co-operating were Sunkist, Calavo, Fruit Dispatch, Armour, Borden and Frigidaire.

There are several apple co-operative ventures. The Washington State will have about $175,000 for its first year's appropriation. This association represents about one-fourth of the nation's total production. The plan is based on a three-year program on a fun-raising basis of one cent per box.

We used to think of walnuts only at Christmas, but now they have been taken out of the seasonal class and the growers are reaping their rewards. The association represents eighty-five per cent of California production. They have a $250,000 appropriation this year raised by one-half cent per pound salable percentage.

Sun-Maid Raisin Growers' Association started advertising in 1914. Today there is a definite emphasis on trade-mark instead of on raisins as a commodity. Their appropriation is $125,000 with evidence of a larger fund for next year.

Calavo Growers of California even changed our vocabularies! While a Calavo is an avacado, it does not necessarily evolve that an avacado is a Calavo—it must be a California avacado to be given that distinction. Not only do we accept the Calavo, but we eat it—something few of us did even ten years ago. Their appropriation is $50,000 based on ten cents per flat of thirteen pounds of the fruit.

The oyster people are discrediting our "R" theory—that we should not eat oysters during May, June, July, and August. They give as their reason that with the present efficient methods of refrigeration, we need have no fear of warm-weather spoilage. This association is fast gaining recognition and soon oysters will gain favor with walnuts and cranberries as non-seasonable foods.

The list is endless. I would like to mention the Red Cherry Association, Olive Association, Canned Salmon Industry, newly organized Canned Peaches, Dates, Rhubarb, Lima Beans, Peas, Sauer Kraut, Wheat Millers and the one that our organization knows most about—the Southern Rice Industry. But our time is limited.

I repeat that I know nothing of your business. I personally can give you no magic formula for consumer acceptance, but I do know that Honey has a story that has never been

convincingly and consistently told to the consumer. A friend told me last week that he used fifty pounds of honey per year in his family of three. I was interested and asked him why? He thought a minute and said, "Just because we like it."

The facts are—again I refer to some of Mrs. Jensen's material:

1. Quick absorption—that is why doctors recommend it for invalids and children.
2. Food value.
3. Flavor—what is there to compare with the nectar of flowers?

The Bible advertises honey in words that drip with appetite-appeal in practically every book from Genesis to Revelations! But McCall's, Good Housekeeping, Delineator, Pictorial Review, Woman's Home Companion, Ladies' Home Journal, practically never mention honey from January to December. I have learned much these past two days and am grateful for the privilege of attending this convention. Why, I did not know that there are five types of honey—honey was honey to me, either strained or in comb, and I preferred the strained. I am only a representative woman, and I believe that I may speak for the group—we want to know more about honey.

—ABJ—

From Pipe Line to Pancakes

THIS picture appeared in many different places. We have an announcement of it in the "Southern Agriculturist," one from a photogravure section of a paper which comments on the occurrence: "Manna from Heaven in the form of honey." Another from the "Sunday Times-West Virginian" titles it "Honey Man Pipes It Direct from Beehive." An item appeared in "Time" in the issue of December 14, 1936 under "Miscellany," titled "Reservoir" and a subscriber of ours remarks at the side of the picture "Oh, Yeah!" He's rather credulous, isn't he?

Then in the American Weekly Magazine supplement of the "Chicago Herald and Examiner" of Feb. 28, 1937, we find the same picture. It probably appeared in other publications from which subscribers have not sent us clippings.

Anyway, James F. Gwynn, of Fairmont, West Virginia, has written us verifying the fact that he was able to insert this pipe into the honeycomb of a colony of bees in the wall of his house. The picture was taken by a local photographer, and being of unique and unusual interest, it found its way into one of the press services making the rounds of the country. James Gwynn is a honey salesman and this piece of publicity has done him an immense amount of good. Remarking about it, he says "Everywhere I go selling honey, people ask 'Are you the fellow who piped honey to his breakfast table?' "

In the spring a swarm of bees came into his home. One day he noticed a sticky spot on the kitchen wall and a similar drip down on the side boards on the outside. He called in a plumber and had a pipe line run into this apparent source of honey. Apparently the comb had melted down. That would be our guess. It deposited the honey at a place where it was retained.

Fastidious Men Take Beauty Treatment

In a recent issue of "Life," the widely read picture magazine, are several pictures showing beauty treatments for men in which hot layers of honey and herbs are poured out from tubes to be absorbed by the face tissues. After the mask is made airtight and has dried, it is removed revealing "a male face beautiful and rejuvenated."

According to "Life," a "typical treatment lasts seventy minutes, means nine layers of a liquid mask with a gland-oil base to which is added a hot composition of honey and herbs. As a result tissues are stimulated and cleansed, circulation improved, wrinkles removed."

—ABJ—

Western Canadian Crop

Prospects for western Canada's honey crop were reviewed recently when the directors of the Manitoba Association met at Elie in connection with the association field day.

There will be a shortage in honey production this year. The crop in Saskatchewan will be almost a failure with nearly a complete clover failure in the southern part of the province.

In Alberta, only the irrigated districts expect a crop. Manitoba beekeepers report lessened production, cool weather and a dicouraging outlook. A normal crop is expected in western Ontario.

British Columbia expects a bumper crop, particularly from the interior of the province, the Okanagan and Kootenay Valleys, where clover stands are in excellent condition. The Fraser Valley will have a satisfactory production, although somewhat late because of the record rainfall in June. F. H. Fullerton,
British Columbia.

—ABJ—

The Beekeeper

By Walter H. Hull.

There is good in every creature,
More in some, in others less;
More in bees, almost, than any,
Saith the Sage; and I confess
Wisdom in his observation,
Truth in what his words express.

See that curious architecture
In the frame-work of her cells;
Not the best geometrician
Could improve on that. He tells,
(The Sage), about her labor,
Of the wonder it compels.

Delving in the realms of Nature,
Gleaning gems of truth from mines
Lying deep in Nature's fastness,
Tracing out her hidden lines,
Keeping bees, the earnest beeman
Keeps in touch with God's designs.

Round-up pictures taken by Bob Sevallos. Hostess Sammy at right getting ready for the big feed.

Scenes from "A Day with the Marsh Family."

THAT THIRD WABASH ROUND-UP

Reported by Eva Stewart.

THE third annual Wabash Valley Round-Up held at Newport, Indiana, at the home of Mr. and Mrs. L. R. Stewart, August 27th and 28th, proved to be not only a successful gathering for the men beekeepers but for their fair ladies as well. Among the more prominent doing Auxiliary work, there were Mrs. E. F. Wikowsky, a leader of the Piatt County Auxiliary (Ill.), Mrs. Bessie Mussulman of Macomb County Auxiliary (Ill.), Mrs. A. J. Gill of Cook-DuPage County Auxiliary (Ill.), Mrs. Mae Seng of Ford-Iroquois County Auxiliary (Ill.), Mrs. Schwin of McHenry Boone County Auxiliary (Ill.), Mrs. Irene Duax of Illinois State Auxiliary, Mrs. Florence Boaenschatz, chairman of the Illinois Honey Cookery, Mrs. John Bates and Mrs. Walter Becker of the Wayne County Auxiliary (Mich.), and last but not least Mrs. Malitta F. Jensen and Miss Willah Goodman, director of Consumer Education and Financial Secretary-Treasurer, respectively, of the American Honey Institute.

An interesting innovation on the usual food demonstration was the skit presented by Mrs. Jensen, "A Day With the Marsh Family," in which the part of Mr. Marsh was played by Benj. Wilkins, Mrs. Marsh by Mrs. Mary Stewart Eberspacher, son Bobby by Roy Grout, daughter Mary by Eva Stewart, Mr. Smith, Mr. Marsh's boss by Jere Frazier, Mrs. Van Dusuen an afternoon caller by Mrs. Adam Bodenschatz, Hannah, the maid, by Mrs. Jensen. The skit was the first used by the American Honey Institute and under the circumstances in which it was presented it proved to be quite a success, the main feature being the use of honey by the maid, Mrs. Jensen, as an important part in the daily diet of the Marsh family.

The Round-Up Pound-Cake contest had twenty-two entries with five prizes being awarded, besides the 4-H contest which had two entries. First prize consisting of one barrel of Nickel Plate flour was won by Mrs. E. J. Raybould of Brazil, Inidana,

Wikowski does an Amos an' Andy.

second prize consisting of one barrel of apples was won by Mrs. A. J. Gill, of Evanston, Ill., third prize consisting of one-half barrel of White Lily flour was won by Mrs. Adam Bodenschatz of Lemont, Illinois; fourth prize consisting of one pair of silk hose was won by Mrs. Agnes Landers of Chicago, Illinois; fifth prize consisting of one box of face powder was won by Mrs. Wesley Osborn of Hillsboro, Illinois. The 4-H club winners were Helen Albright of Lafayette, Indiana who won first prize $3.00 in cash; and Evelyn Albright, Lafayette, Indiana, who won second prize, a sewing box.

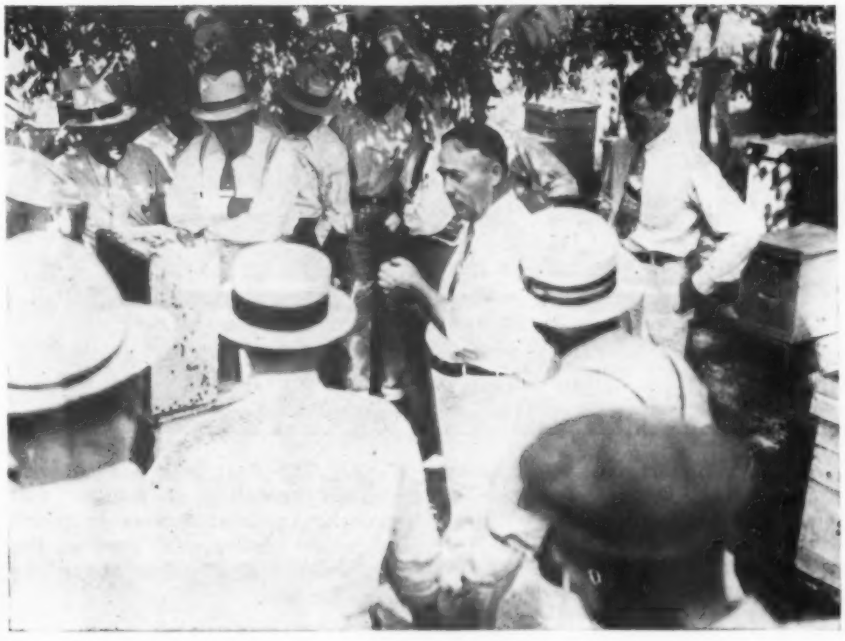
The judges for the cake contest were Aneta Beadle, extension nutritionist at Purdue University; Mrs. Malitta F. Jensen of the American Honey Institute, Madison, Wisconsin; and William Ingram, Newport, Indiana.

After the big feed at noon, Mrs. Jensen met the ladies alone and gave them one of her famous pep talks on honey and its uses. The idea of an Indiana State Auxiliary was put up for consideration to the ladies from Indiana.

Mrs. Benj. Wilkings and Eva Stewart enlisted thirty-one new members from the state of Indiana for the National Auxiliary. The new members are:

Miss Eva Stewart, Newport; Mrs. J. Lake McDonald, Route 3, Box 207, Marion; Mrs. Florence Miller, St. Bernice; Mrs. Harry B. King, Route 1, Clayton; Mrs. Paul Johnson, Route 2, Peru; Mrs. Jennie Smith, Route 5, Box 534, Terre Haute; Mrs. E. W. Baker, Newport; Mrs. Bertha Wright, Route 2, Box 519, Brazil; Mrs. Mabel Sparks, Pittsboro; Mrs. Geo. F. Cain, 1406 E. 40th St., Marion; Mrs. Nancy Weis, Route 1, Hammond; Mrs. Griffin McMath, Route 5, Box 118, Indianapolis; Mrs. Mary Eberspacher, Waveland; Mrs. V. N. Asbury, Newport; Miss Margaret Hollingsworth, Newport; Mrs. H. V. Nixon, Newport; Mrs L. R. Stewart, Newport; Mrs. Wm. Horst, 518 Main St., Crown Point; Mrs. Everett Rhodes, Route 5, Sullivan; Mrs. Bessie Trowbridge, Oakland Avenue Road, Elkhart; Mrs. Walter Bielfield, Route 4, Box 48, Terre Haute; Mrs. Geo. W. Graham, Route 2, Vevay; Mrs. Della Hayes, Route 1, Box 98, Brazil; Miss Liota R. Brown, Route 1, Tangier; Mrs. Gerald Hodson, Amboy; Mrs. Walter M. Reiz, Route 5, Box 752A, Terre Haute; Mrs. Monroe McMath, 2210 Spring St., New Castle; Mrs. Homer Godwin, Emison; Miss Evelyn Albright, Route 10, Lafayette (4-H club member, age 14); Mrs. G. J. Morrison, South Bend; Mrs. Sumner J. Brown, Newport.

Mrs. Jensen in action.



Inspector Starkey looking for a six-legged queen.

Eva Stewart talks over Mrs E. J. Raybould's prize winning cake.

— o —

Missouri State Fair 1937 Apairy Show.

Honey.

Display of Apiary Products—2 entries. (1) Carl Kalthoff, Higginsville; (2) Ollie Kerby, Sedalia; (3) Carl A. Neef, Boonville.

Display of Light Extracted Honey—(1) Carl Kalthoff, Higginsville; (2) Ollie Kerby, Sedalia.

Display of Comb Honey—No Entry.

Best Dozen 2-lb. Jars White Cut Comb Honey—(1) Carl Kalthoff, Higginsville.

Best Dozen 2-lb. Jars Amber Cut Comb Honey—No Entry.

Best 2-Dozen 1-lb. Jars White Extracted Honey—(1) W. A. Scott, LaMonte; (2) Ollie Kerby; (3) Carl Kalthoff.

Best 2-Dozen 1-lb. Jars Amber Extracted—(1) Carl Kalthoff; (2) Carl Neef; (3) Mrs. Wm. Brengarth, Boonville; (4) Ollie Kerby.

Best Langstroth Size Frame-Sealed Honey (White or light amber)—(1) Carl Kalthoff.

Best Shallow or Half Depth Frame-Sealed Honey—(1) Carl Neef; (2) Carl Kalthoff.

Pyramid of 6 Most Perfect Sections Comb Honey—(1) Carl Kalthoff.

Best Dozen 2-lb. Jars White Candied Honey—(1) Carl Kathoff; (2) Carl Neef; (3) W. A. Scott; (4) Ollie Kerby.

Best Dozen 2-lb. Jars Amber Candied Honey—(1) Carl Kalthoff; (2) W. A. Scott; (3) Mrs. Wm. Brengarth.

Bees and Beeswax—Best 5-lb. Cake White Beeswax—(1) F. S. Butterwick, Sedalia; (2) Ollie Kerby; (3) Mrs. Wm. Brengarth; (4) Carl A. Neef.

Best 5-lb. Cake Yellow Beeswax—(1) Ollie Kerby; (2) Carl Kalthoff; (3) Carl Neef; (4) Mrs. Wm. Brengarth.

Best 5-lb. Cake Yellow Beeswax—(1) Ol-

lie Kerby; (2) Carl Kalthoff; (3) Carl Neef; (4) Mrs. Wm. Brengarth.

Best Worker Comb (empty)—(1) W. A. Scott; (2) Carl Kalthoff; (3) Mrs. Wm. Brengarth.

Banded Italian Queen and Her Bees—(1) Carl Neef; (2) W. A. Scott; (3) Ollie Kerby; (4) Carl Kalthoff.

Honey Cookery.

Judge: Mabel McMarshall.

General Display of Uses of Honey in Preparation of Food—(1) Mrs. Roy Hulse, Oak Grove; (2) Mrs. Geo. Landes, Rt. 3, Sedalia; (3) Mrs. C. E. Miller, 1608 S. Park Ave., Sedalia; (4) Mrs. C. A. Kahrs, Rt. 5, Sedalia.

Honey Fruit Cake—(1) Mrs. Roy Hulse; (2) Mrs. Geo. Landes; (3) Mrs. C. E. Miller.

Light Honey Cake—(1) Mrs. Geo. Landes; (2) Mrs. Roy Hulse.

Dark Honey Cake—(1) Mrs. Roy Hulse; (2) Lucile Cramer, Lamine; (3) Mrs. Geo. Landes.

1-lb. Loaf of Whole Wheat Bread—(1) Mrs. Roy Hulse; (2) Mrs. C. A. Kahrs, Rt. 5, Sedalia; (3) Mrs. Geo. Landes.

⅛-Gallon Honey Vinegar—(1) P. D. Hull, Rt. 3, Lamonte; (2) W. A. Scott, Lamonte; (3) Mrs. Roy Hulse, Oak Grove; (4) J. L. Scotten, Rt. 3, Sedalia.

Specials.

Most Classes Exhibited In—Carl Kalthoff.

Most Classes Entered in Honey Cookery—Mrs. Roy Hulse and Mrs. Geo. Landes tied for first place.

Most Premiums Won—Honey Cookery—Mrs. Roy Hulse

Most Premiums Won—Men's Division—Carl Kalthoff.

Brought Exhibits Greatest Distance—Carl Neef.

4-H Club Bee Exhibits—Best 4-H Club—Honey and Bee Products—La Fayette (Waverly Club); Jackson (Staple Community Bee Club).

Best One Quart Extracted Honey—(1) John Casebeer, Waverly; (2) Roy Day Denham, Independence; (3) William Waltz, Waverly; (4) Taylor Casebeer, Waverly.

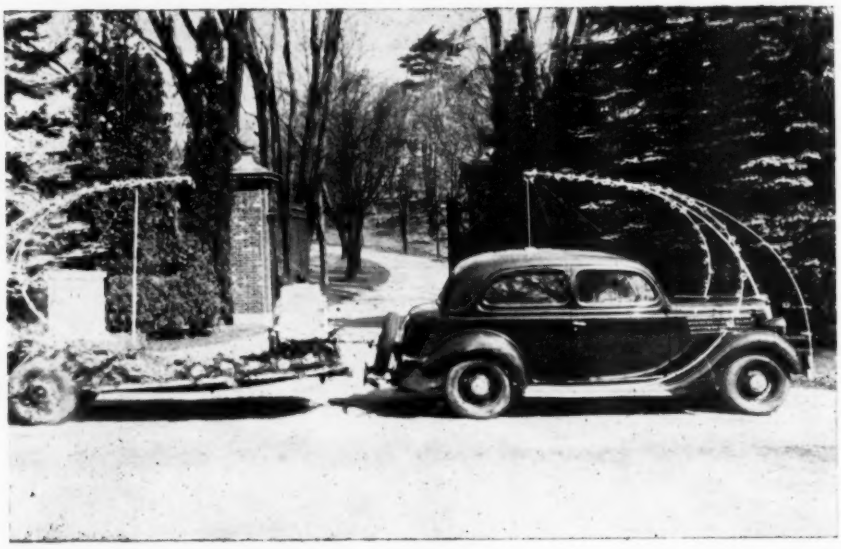
Best 3 Sections Comb Honey—No Entry.

Best 1 Quart Cut Comb Honey—(1) Herman Dieckman, Jr., Levasy; (2) Taylor Casebeer, Waverly; (3) Roy Day Denham, Independence; (4) William Waltz, Waverly.

Best 3-lbs. of Beeswax—No Entry.

—ABJ—

Beekeeping Theme for Patriots' Day Float



These two pictures were taken April 19 at the Lexington, Massachusetts, celebration of Patriots' Day, which is a legal holiday. The float was entered in the parade and received much favorable comment. The frames of honey showed up well and the turret was labelled "National Honey Week." The float was bedded with reversed branches of juniper and hemlock. Artificial flowers in peach and yellow shades were used on the float and on the arches above the passenger car.

Walter M. Copeland.

— o —

Florida State Beekeepers' Association Meet in October.

The Florida State Beekeepers' Association will hold its annual meeting at Winter Haven, Florida October 7, 8 and 9. A good program is being arranged and all beekeepers and their friends are invited.

M. E. Darby,
Secretary.

— o —

Georgia Annual Convention.

The eighteenth annual convention of the Georgia Beekeepers' Association was held in Moultrie, Georgia, September 16 and 17. In the absence of the president, G. T. Wilbanks, the meeting was called to order by the vice-president, W. P. Bradley.

There was an attendance of approximately seventy-five on each day. Outstanding visitors and speakers were H. H. Root, Medina, Ohio; E. S. Prevost, Clemson, S. C.; R. E. Foster, Gainisville, Fla.; B. P. Livingston, of the Georgia Department of Entomology.

The night of the sixteenth a banquet was held and entertainment was provided by the South Georgia Colored Quartette. After the banquet the public was invited to see moving pictures of pollination and other bee activities. These pictures were furnished through the courtesy of H. H. Root, who made an explanatory talk.

The following officers were elected: John W. Cash, Bogart, president; C. P. Bradley, Hazelhurst, first vice-president; F. H. Dennington, Marietta, second vice-president; J. H. Burden, Macon, third vice-president; Geo. Kirkland, Swainesboro, fourth vice-president; J. G. Rossman, Moultrie, secretary-treasurer.

The next meeting will be held at Valdosta.

J. W. Cash, J. J. Brown, and J. J. Wilder were honored with life memberships in the association, in recognition of the work they have done in the past.

J. C. Perry,
Secretary.

Missouri Again.

Probably most of the beekeepers of Missouri who are interested in organization work are already aware of the fact that on May 20 the Missouri Apicultural Society and the Missouri State Beekeepers Association held a joint meeting in St. Joseph. The main object of the meeting was to talk over plans for harmonious cooperation of the two organizations in furthering the interests of the beekeepers of the state and perhaps eventual consolidation.

We had expected that this report would be made by one of the retiring officers of the Missouri State Beekeepers Association immediately following the meeting; but since this has not been done, it is, perhaps, our duty to put the present status of affairs before the beekeepers.

The Missouri State Beekeepers Association elected officers as follows: Leo R. Bradford, Oregon, president; George D. Jones, Columbia, first vice-president; Dr. William C. Wilson, St. Charles, second vice-president; Reid Bailey, Oregon, secretary-treasurer.

We wish to announce that these new officers are ready to go forward with the work of the Missouri State Beekeepers Association, but we cannot do it alone. We must have the cooperation of the beekeepers. Most of all, we wish to say that in working out an affiliation of the two organizations, we should like to have the support of every beekeeper in Missouri. The first step toward that affiliation has already been taken, since Mr. Bradford is president and Mr. Bailey is secretary of both organizations.

We shall be glad to receive suggestions from all interested beekeepers, whether or not you are or ever have been a member of either organization. Can we accomplish more through two organizations working harmoniously, or through one really strong organization? Please bear in mind that the owner of one colony of bees has just as much voice and might have just as valuable suggestions to offer as the owner of a thousand.

Reid Bailey,
Secretary.

— o —

Kansas Beekeepers' Convention.

The annual summer convention of the Kansas State Beekeepers' Association was held at Fredonia, July 25. Registration attendance was seventy-five, twelve counties being represented. The following officers were elected: President, O. A. Keene; secretary, H. W. Stewart; vice presidents, J. F. Rule, Clark Fulton, Merrill Thomas.

In his report on "Apiary Inspection in Kansas for 1937," Dr. R. L. Parker, state apiarist, said that while funds for inspection were inadequate yet by the work of his inspectors and the vigilence of beekeepers, the proverbial American foulbrood bug is having a tough time maintaining his

status quo, this year showing in his balance sheet a considerable falling off of business. In a subsequent address, "Future Beekeeping Prospects in Kansas," Dr. Parker stressed such factors as soil, legumes, favorable and unfavorable weather conditions. Of course the good doctor looked for a change in the dry cycle, and spoke hopefully of better days in Kansas. But honey production, like the weather, is much discussed with nobody able to do anything about it.

Professors W. B. Wright and Homer J. Henney, of the faculty of Kansas State College, discussed the economic side of beekeeping, in the respective topics of "Bookkeeping for Beekeepers," and "Marketing Problems for Beekeepers." Such topics as these appear altogether too infrequently in beekeepers' programs as well as in bee culture magazines. And may I say parenthetically, honey producers will always be in trouble until their house is put in order on these two fundamentals.

The more serious concerns of the program were enlivened by the graphic and humorous observations of Hershel Short of Altoona on "Beekeeping in Wilson County," and an orchestral interlude by Fredonia musicians, assisted by two young ladies who sang their way into the hearts of the beekeepers. William D. McGinnis, county clerk of Wilson county, welcomed the Association to the shady park of Fredonia. President O. A. Keene responded, and early in the program George Pratt of Topeka gave a short talk to beginners on "What Not to Do."

The Association was favored by the presence of Mr. Oliver Hamm, of Altoona, Kansas, formerly of Wyoming where he served as president of the Wyoming Beekeepers' Association for four terms, and in 1925 shipped 104,000 pounds of honey to market from an apiary of 500 colonies. That looked like "big business" and a flight in "high finance" to the relatively small 'keepers in Kansas. To the convention also came Mrs. J. L. Solley of Thayer, Kansas, lately of California, reporting that on the rear of a small truck she had brought back thirty colonies of bees. "Some trip," said the secretary. "Yes," she said, "but there's room in Kansas."

Recent dry years had almost put Kansas beekeepers out of the race in less favored sections of the state. They now appear to have their "second wind" and will soon be again in the running. The worst that ever happens in Kansas is "suspended animation." The convention, with its good fellowship, eats, and an undaunted faith in tomorrow, was certainly a going concern.

H. W. Stewart,
Secretary.

Western New York Producers.

The Western New York Honey Producers' Association held its twenty-fifth annual summer meeting and picnic Saturday, August 7. President John Leonard, of Scottsville, presided at the meeting. About 150 beekeepers were present.

Several speakers talked on a variety of subjects: John DeMuth, of Pembroke, described the first meeting of the association, twenty-five years ago; Harry Smith told of the shortage of honey this year in Michigan and demonstrated the Hilbert method of packing cut comb honey; Charles Reese, state inspector of Ohio, talked about inspection work in his state; Neal Lanner, county inspector, of Conneaut, Ohio, spoke on inspection and the short crop in Ohio. Dr. E. F. Phillips, of Cornell University, lectured in an interesting fashion on some historical and present day aspects of beekeeping. He spoke of the early "honey slingers," establishment of the pure food law, the effect of the war on honey export, and so on.

Howard Meyers, of Ransomville, auctioned queens donated by Garon Bee Company, Donaldsonville, La., D. P. Green, DeLand, Fla., and Emil Gutekunst, Colden, N. Y., as well as supplies from Walter T. Kelley, Paducah, Ky., and W. M. Garwood, Batavia, N. Y. The proceeds, $24.40, were turned over to American Honey Institute.

George E. Norris,
Secretary.

—o—

Massachusetts Beekeepers Meet.

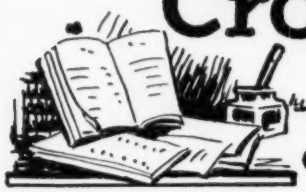
A meeting of beekeepers took place at Amherst, Massachusetts, July 29, during Farm and Home week. Allen Latham gave an interesting discussion concerning pollen requirements of bees. He was followed by Dr. Phillips, who gave a very fine discussion of honey.

Charles Mraz, of Middlebury, Vermont, spoke on the resistance of bees to disease. His opinion is that such resistance exists and that more can be done with breeding work. This talk led to considerable discussion.

George Meigs presided at the afternoon meeting which began at 2 P. M. George Rea spoke on the management of the two-story colony and as usual presented some valuable information. Allen Latham spoke again, this time on the care of package bee colonies. Deputy Apiary Inspector John van de Poele, head of the state inspection discussed what he was trying to do with the inspection work of the state. He pointed out that, in order to obtain adequate inspection, more money was necessary.

Charles Mraz spoke concerning the use of the carbolic acid screen and was followed by Dr. Phillips who talked about changing beekeeping.

Frank R. Shaw.



Crop and Market Report

COMPILED BY M.G.DADANT

For our October Crop and Market we asked our correspondents to answer the following questions:

1. How is the final crop compared to 1936?
2. How does the honey run for color?
3. Is demand for large lots good?
4. How is local demand?
5. Give suggestions on changes from our September price page.

The Final Crop.

When the September market page was written, it appeared that there might be quite a little addition to the crop from the fall flow from different sources including alfalfa and sweet clover.

However, these anticipations were doomed to disappointment as in most sections the late crops did not materialize. There were, however, very fair fall flows harvested in some sections of the Mississippi and Missouri Valleys but as a general rule the fall crop was disappointing.

In going over our tabulated page for the September issue, we find in practically all instances that reporters now are reporting a final crop considerably less than they had anticpiated when reporting for September. This is probably a leveling off due to the fact that anticipation was not realized when extracting was done.

This is particularly true in some of the irrigated sections.

Perhaps it may be that the total crop in California has boosted just a little since our last report came out due to the desirable crop in the thistle country. Undoubtedly it is that California has a much larger crop than a year ago and according to our figures about 50 per cent larger. This also has undoubtedly had considerable to do with the starting price on honey being as low as it was.

The New England states have been disappointed as have the ordinary white clover and sweet clover belts of the Central West. In many instances, feeding will have to be done to prepare the bees for winter and in many other cases feeding has become necessary owing to leaving supers on too long which the bees have not had occasion to fill. We anticipate that there may be numbers of bees which will, therefore, go into winter quarters short of stores unless provisions are made for feeding.

Honey Color.

As we had anticipated earlier, the color of the honey in most cases has run considerably darker this year than in previous years due to the fact that the honeyflow came very slowly and this being the case the bees worked on any minor sources which may have been at hand, thus giving some light amber grade where white honey had been produced heretofore. This does not apply, however, to quite a number of sections which are still reporting very fine white honey. This includes North Dakota, Minnesota and northern Michigan as well as the irrigated regions. No doubt, however, the amount of water white honey is extremely limited and the amount of white honey far below what it was at the same time in 1936.

Demand for Large Lots.

The demand for large lots is exceedingly good although the large packers perhaps have pretty well fortified themselves by this time. We believe, however, that the individual carlot buyer and the less than carlot buyer is still to be heard from. We rather look for a picking up of demand and inquiries during the next month or two on account of the fact that their usual sources of supply will not be available this year due to the short crop. There is an unusually good demand, however, from the very small packer and from the beekeeper who packs himself, for ton to five ton lots of honey. Many of these folks are not in a position to order carload lots and are, therefore, having to pick up honey wherever they can at a much advanced figure over what their honey cost last year. In other words the carload lots now held, particularly in the plains region and Central West, as well as the East, are held in strong hand with a boosting up of western markets but will probably realize more for the producers than earlier lots sold. This is especially true in California.

Local Demand.

The local demand, of course, has been affected considerably by the fact that the fruit crop is not yet harvested. The exceedingly heavy apple and pear crops are undoubtedly going to have some effect upon the local demand.

On the other hand employment is far in excess of what it was a year ago and with people drawing higher wages and more generally employed no doubt this, in due course of time, is going to have its effect upon the local demand for honey.

Sugar prices have advanced also which should militate in favor of the honey sales although this is perhaps offset by the fact that there is a big sorghum crop being harvested and in prospect.

Suggestions for Change in Prices.

Every suggestion coming in for change in prices on our recommended price page is for advances. Beekeepers and reporters are beginning to feel the pinch of a short crop and although most of them are in agreement that rapid advance would be detrimental to honey sales, they still feel that a gradual advance snould be put into operation.

So it happens that our reporters are reporting shorter crops than they had anticipated earlier, they are also recommending higher prices. We have had to make a number of revisions particularly in the carlot and the ten-pound price. Good white honey now should not sell we believe for less than 6 cents f.o.b. the producer's station and extra white undoubtedly will command more than this. In fact this is a year when good white honey is almost "as scarce as hen's teetn."

SUGGESTED PRICES — F.O.B. SHIPPING POINT	Crop Compared to 1936	Honey Selling	Buyers?	C/L White Extracted	C/L Amber Extracted	C/L No. 1 Comb	10-lb. Retail Extracted	5-lb. Retail Extracted	10-lb. Bulk Comb	5-lb. Bulk Comb	1-lb. Jar Retail	Comb Section Retail	Comb - Case to Grocer	Discount to Grocer	Discount to Jobber
NEW ENGLAND	40%	Fair		____	____	____	$1.60	$ .85	____	____	$ .25	$ .30	$5.00	25%	35%
NEW YORK	50%	Fair	Yes	.08	.07	$3.50	1.30	.70	1.40	.75	.25	.25	4.50	25%	35%
NEW JERSEY, DELAWARE, MARYLAND	75%	Fair		____	____	____	1.50	.85	____	____	.25	.25	4.50	20%	30%
WEST VIRGINIA, VIRGINIA	60%	Good	Yes	.07½	.06½	3.00	1.30	.70	1.40	.75	.25	.25	4.50	20%	30%
NORTH CAROLINA, SOUTH CAROLINA	70%	Good		____	____	____	____	____	____	____	____	____	____	____	____
GEORGIA	130%	Good	Yes	.07½	.06½	____	.90	.50	1.10	.60	.25	.25	____	20%	25%
FLORIDA	60%	Fair	Yes	.07½	.06	____	1.15	.60	1.25	.70	____	____	____	25%	35%
ALABAMA, MISSISSIPPI	80%	Fair		.07	.06	____	1.25	.65	1.40	.75	.20	.25	____	20%	25%
KENTUCKY, TENNESSEE	200%	Fair		.07½	.06	3.00	1.40	.75	1.80	1.00	.20	.20	____	20%	25%
ARKANSAS, LOUISIANA	150%	Good		____	____	____	1.40	.70	1.50	.80	.20	____	____	____	____
TEXAS	110%	Fair		.06	.05	____	1.25	.65	1.35	.70	.25	.25	____	____	25%
NEW MEXICO, ARIZONA	60%	Fair		.06	.05	____	1.00	.60	____	____	____	____	____	____	____
PENNSYLVANIA, OHIO	40%	Fair		.07½	.06	____	1.25	.70	____	____	.25	.25	4.50	____	25%
MICHIGAN	40%	Good	Yes	.07¾	.06½	3.00	1.30	.75	____	____	.25	.25	4.00	25%	40%
WISCONSIN	40%	Fair		____	____	____	1.30	.75	____	____	.25	.25	____	20%	30%
MINNESOTA	40%–70%	Good	Yes	.06½-.07	.05½	3.50	1.20	.65	____	____	.20	.20	3.60	30%	40%
INDIANA	40%	Good		____	____	____	1.35	.75	____	____	.25	.25	3.60	____	____
ILLINOIS, IOWA, MISSOURI	50%	Good		.07½	.06	3.50	1.25	.70	1.50	.80	.25	.20	4.00	20%	30%
NORTH DAKOTA, SOUTH DAKOTA	60%	Good	Yes	.06¾-.07	.06	3.75	1.25	.70	1.35	.70	.25	.25	4.00	25%	35%
NEBRASKA	40%	Good		.07	.05½	3.50	1.25	.65	1.35	.70	.20	.20	3.75	20%	30%
KANSAS, OKLAHOMA	30%	Fair		____	____	____	1.25	.65	____	____	.25	.25	____	20%	30%
WYOMING, COLORADO	50%	Fair		.06½-.07	.06	____	1.00	.60	____	____	.20	.20	3.50	20%	30%
MONTANA	90%	Fair		.06½	.05½	____	1.00	.55	____	____	.18	____	____	25%	35%
IDAHO	30%	Fair		.06	.05¾	3.00	1.00	.55	____	____	____	____	3.50	____	____
UTAH, NEVADA	40%	Good		.06-.06½	____	____	1.00	.55	____	____	____	____	____	20%	30%
WASHINGTON, OREGON	50%	Good		.06½-.07	.05½-.06	3.50	1.00	.55	____	____	.20	.25	4.00	____	____
CALIFORNIA	150%	Fair		.06	.05	____	1.00	.55	____	____	.20	.25	____	20%	30%
BRITISH COLUMBIA	120%	Good		.10½	____	____	1.50	.85	____	____	____	____	____	____	____
ONTARIO and QUEBEC	80%	Fair		.08	.07	____	1.25	.65	____	____	____	____	____	____	____
SASKATCHEWAN and ALBERTA	50%	Fair		.09	____	____	____	____	____	____	____	____	____	____	____
MANITOBA	70%	Good		.10	____	____	1.10	.60	____	____	____	____	____	____	____

The BEEKEEPER'S EXCHANGE

Copy for this department must reach us not later than the fifteenth of each month preceding date of issue. If intended for classified department, it should be so stated when advertisement is sent.

Rates of advertising in this classified department are seven cents per word, including name and address. Minimum ad, ten words.

As a measure of precaution to our readers, we require references of all new advertisers. To save time, please send the name of your bank and other references with your copy.

Advertisers offering used equipment or bees on combs must guarantee them free from disease, or state exact condition, or furnish certificate of inspection from authorized inspector. Conditions should be stated to insure that buyer is fully informed.

BEES AND QUEENS

"SHE-SUITS-ME" QUEENS. None better. Only choice selected queens sent out. Linebred, three-banded stock. Prices after May 20, one queen $1; six for $5. Special prices on large quantities. Send for circular
Allen Latham, Norwichtown, Connecticut.

THREE-BANDED ITALIAN BEES AND Queens of fine quality. A trial order will convince you. Satisfaction guaranteed. Marketing Agreement prices. Alamance Bee Company, Geo. Elmo Curtis, Mgr., Graham, N. C.

EXTRA YELLOW Italian queens that produce bees a little more yellow than three-banded; more gentle and just as good workers. Untested 50c each; tested $1.00 each. Health certificate and satisfaction. Hazel V. Bonkemeyer, Randleman, N. C., Route 2.

I WANT YOUR QUEEN TRADE the balance of the season. Queens that fill your brood chambers with brood which in turn becomes bees that fill your supers with honey.
O. P. Hendrix, West Point, Miss.

GOLDEN QUEENS. Excellent quality that produce hardy, gentle workers. Personally reared. Untested 50c; tested $1.00. Health certificate. Safe arrival and satisfaction guaranteed.
O. E. Brown, Rt. 1, Asheboro, N. C.

WILL TRADE—Hustling 3-Band Queens for white honey and supplies.
Caney Valley Apiaries, Bay City, Texas.

QUEENS, Italians or Caucasians 50 cents each. We have raised and shippped thousands of queens during the past 10 years and know how. Weaver Apiaries, Navasota, Texas.

CAUCASIAN QUEENS. Gentle, winter well, honey getters. 50c. Miller's Caucasian Apiaries, Three Rivers, Texas.

REQUEEN NOW—Young bees and a young queen now insure better build up in spring. We take great pains to rear and select only fine vigorous queens and bees. Queens 50c each to November. Dealer discounts.
Silver Run Apiaries, Phenix City, Ala.

CAUCASIAN QUEENS. A few queens for October. Also booking orders for package bees and queens for 1938 delivery.
Bolling Bee Co., Bolling, Alabama.

CAUCASIAN PACKAGE BEES. Booking orders now for 1938 delivery at new market agreement prices.
P. B. Skinner Bee Co., Greenville, Ala.

HONEY FOR SALE

FOR SALE—Northern white extracted and comb honey.
M. W. Cousineau, Moorhead, Minn.

CHOICE Michigan Clover Honey. New 60's.
David Running, Filion, Michigan.

HONEY FOR SALE—Any kind, any quantity. The John G. Paton Company, 230 Park Avenue, New York.

HONEY FOR SALE—Fifty tons non-granulating white comb honey in regular shallow extracting frames, suitable for general packing. 10c and 11c. J. J. Wilder, Waycross, Ga.

FOR SALE—Well ripened clover honey, car lot or local shipments. Will be pleased to submit sample. THE COLORADO HONEY PRODUCERS' ASSN., 1324 Market St., Denver, Colorado.

HONEY FOR SALE—All kinds, any quantity. H. & S. Honey and Wax Company, Inc., 265-267 Greenwich Street, New York.

FOR SALE — Fancy, well ripened, white sweet clover honey in 60-lb. cans. Extra good quality. Dadant & Sons, Hamilton, Ill.

DELICIOUS PALMETTO HONEY in new sixties.
Peter W. Sowinski, Fort Pierce, Florida.

FOR SALE—Clover extracted honey in sixties, 8c; amber 7c.
H. G. Quirin, Bellevue, Ohio.

NEW CROP CLOVER HONEY. Low price. 1000 cases 60's, used once, 40c each.
Edw. Klein, Gurnee, Ill.

NEVADA ALFALFA SWEET CLOVER HONEY. C. E. Andrews, Fallon, Nevada.

WHITE CLOVER HONEY in 60-lb. cans at 8c lb. This is last year's honey, no honey this year.
F. W. Summerfield, Grand Rapids, Ohio.

HONEY PACKERS—Write us for prices on carload lots of California and Western Honeys. We stock all varieties. HAMILTON & COMPANY, 108 West Sixth St., Los Angeles, California.

FOR SALE—Nice white, sweet clover honey, in 60-lb. cans, 7c f.o.b. Dunlap, Iowa. Sample ten cents. E. S. Miles & Son.

HOWDY'S HONEY: White, clover extracted and small lot amber mixed fall flowers including buckwheat.
Howard Potter, Ithaca, Michigan.

FOR SALE—Sweet clover honey. Per case of 12 5-lb. pails $4.80 f.o.b. Toronto.
M. W. Thompson, Toronto, S. Dakota.

NEW CROP white extracted, case or car lots. Satisfaction guaranteed. Sample 20 cents. Prices reasonable.
Harry C. Kirk, Armstrong, Iowa.

HONEY AND BEESWAX WANTED

WANTED—Extracted Honey. Send sample and price delivered to T. W. Burleson & Son, Waxahachie, Texas.

WANTED—All dark grades of honey.
C. Jankowski, Russell, Illinois.

WANTED—Car lots honey; also beeswax, any quantity. Mail samples, state quantity and price. Bryant & Cookinham, Inc., Los Angeles, California.

WANTED — White and Amber Extracted Honey, any quantity; also beeswax. Write THE FRED W. MUTH CO., Pearl and Walnut Sts., Cincinnati, Ohio.

ALL GRADES, including capping melter honey. Prairie View Apiaries, 2005 Fullerton, Detroit, Mjchigan.

WANTED—Comb, chunk comb, white and light amber extracted honeys. Any amount.
Central Ohio Apiaries, Millersport, Ohio.

WANTED—Extracted Honey. Send wholesale price delivered to Little River Apiaries, Gause, Texas.

WANTED—White and Light Amber extracted honey in carlots or less. Clover Blossom Honey Co., 712 Kossuth St., Columbus, Ohio.

WANTED—Car lots or less of Extracted Honey; also comb. Send sample and price delivered to Walter Geiger, 325 West Vine Street, Milwaukee, Wisconsin.

CASH PAID FOR COMB AND EXTRACTED HONEY. Can use 10,000 cases of comb honey. C. W. Aeppler Company, Oconomowoc, Wisconsin.

WANTED—Comb, chunk comb and extracted honey. Any amount.
Kedash Brothers, Chillicothe, Ohio.

BEESWAX WANTED—Any quantity. Write for prices and shipping tags. The A. I. Root Company of Iowa, Council Bluffs, Iowa.

FOR SALE

100 CLEAN COLONIES bees equipment 300, six acres fruit, garden, alfalfa, home, honey house, garage, other buildings. Best beekeeping location. Wm. L. Ball, Richmond, Utah or Superior Honey Company, Denver, Colorado.

FOR SALE—4 hives bees guaranteed no disease. P. Stapilus, 2703 Bildahl St., Rockford, Illinois.

FOR SALE—Cowan extractor No. 15, 40-gal. tank, both for $9.00.
J. B. Huffman, Buena Vista, Virginia.

SIXTY DEEDED ACRES ON RIVER; mile from town, fenced, buildings, wood, free water, low taxes. $4000. Also goats.
Linnie Cooper, Firebaugh, California.

FOR SALE—Twelve Modified Dadant colonies—bees—26 Modified extracting supers. Disease free. Elmer Woehler, c/o O. H. Meyer, Arlington, Minnesota.

250 COLONIES BEES in the famous Boise Valley where crop failure is unknown; also residence. Reference First National Bank.
Fred Forch, Rt. 2, Nampa, Idaho.

FOR SALE—250 colonies bees, 250 full depth supers, full extracting, liquefying and processing equipment. Inspection certificates furnished. Reason failing health.
E. Lindblad, North Platte, Nebraska.

WANTED

WANTED—FILTER PRESSES, all sizes and types. Also Bottling Equipment.
CONSOLIDATED PRODUCTS CO., INC.,
13-14 Park Row, New York, N. Y.

WANTED—Used 2-frame honey extractor.
James Wheeler, Maroa, Illinois.

HONEY—1 case each goldenrod, raspberry, basswood, extracted. E. Lyn Woodin, 1065 31st Street, Northwest, Washington, D. C.

WANTED—500 to 700 colonies of bees to work on shares or for wages for 1938 by two ambitious, experienced young men. Good references. Go anywhere.
Write Box 8, c/o American Bee Journal.

SUPPLIES

BEST QUALITY bees supplies, attractive prices, prompt shipment. Illustrated catalog on request. We take beeswax in trade for bee supplies. The Colorado Honey Producers' Association, Denver, Colorado.

BEST QUALITY soft white pine Hoffman frames $30.00 per thousand. Complete line of bee supplies manufactured by us. All prices the lowest. Free catalog.
The Walter Kelley Co., Paducah, Ky.

FOR SALE—Queen mailing cages. Material, workmanship and service all guaranteed. Write for quantity prices.
Hamilton Bee Supply Co., Almont, Mich.

ATTRACTIVE PRICES on bee supplies and comb foundation. Send for catalog. Saves you money. THE FRED W. MUTH CO., Pearl and Walnut Sts., Cincinnati, Ohio.

DIFFERENT, that's all. Written and published for the instruction of beekeepers. 52 pages of breezy entertaining beekeeping comment each month. One year, $1.00; two years, $1.50. Sample, 3c stamp.
The Beekeepers Item, San Antonio, Texas.

YOUR WAX WORKED into medium brood foundation for 15c pound. Medium brood foundation 10 pounds $4.10.
Fred Peterson, Alden, Iowa.

INSTITUTE INKLINGS

SOON it will be time for the big convention in Washington. Read the account of the program and the great time to be expected there written by Abrams on page 480.

Honey Harvest Festival.

Don't forget! This is the month of the Honey Harvest Festival. This is a celebration for all producers. It's an excellent time to move honey. The dates are October 25-31. Send to the American Honey Institute for material for the Festival. Grocers you will find willing to cooperate with producers for window display space during the Festival Week. Those wishing may secure window and display streamers from American Honey Institute, Madison, Wisconsin, in brown on yellow with recipe illustrations for the following prices (to members): 1000, $3.00; 500, $2.00; 250, $1.25; 100, 60c; 50, 40c; 25, 25c; 10, 15c.

10 to 100 are prepaid. Larger lots are f.o.b. Madison. Prices to nonmembers: 1000, $3.75; 500, $2.50; 250, $1.55; 100, 75c; 50, 50c; 25, 35c; 10, 20c.

A new series of recipe stickers are also available for use for display and sales purposes, not only for Festival Week but also for selling at any time of the year. They feature individually in different colors "Honey Chews," "Honey Pumpkin Pie," "All-honey Cooky," "Honey Date Nut Bread," "Honey French Dressing," "Home Made Syrup," and "Butterscotch Sauce." Prices for stickers of any of these recipes are 100, 25c; 250, 55c; 500, $1.00; 1000, $1.65.

Some of the activities suggested for the Honey Harvest Festival are parades, a Children's Day, Contest Day, Stunt Day, Exhibits. A festival plan circular is available from American Honey Institute. Write for the copy. It will give you complete suggestions for doing any of these things. A complete outline for any of the events suggested may also be obtained from American Honey Institute. This is all covered in Honey Harvest Festival plans and program circular. You better send for copy right now as it will take some time to get all the plans worked up and make it worthwhile. It's a good time to sell your honey. If you do a good job the smaller beekeepers will be able to dispose of much of their crop. Festival material available as suggested in the Honey Harvest Festival circular are for exhibits, parades, stunt contests, festivities, broadcasts, newspaper releases including recipes. Remember the dates—October 25-31 and don't wait too long.

The Heinz Book.

A new quantitative recipe book is being released by Heinz for the use of chefs and restaurateurs using Heinz products. Heinz has been contacting the Institute ever since the beginning at Indianapolis. It sometimes takes a long time to get some of these important food people to recognize honey but once they do it, they do it in a big way.

This Heinz book is very ambitious and covers 65 pages, with many illustrations and recipes. On page 38 is a Honey French Dressing recommended as excellent for fruit salads. A very fine use, too, because the recipe, calling for a third of a cup of honey, vinegar, olive oil, salt and paprika, is quite easy to make. The recipe is large enough for 25 servings and should go a long way toward interesting in honey the people responsible for the success of our restaurants and hotels.

International Beekeepers' Congress.

The Institute Day at the International Congress is October 27. Contest judging will take place on the morning of the 25th. Charter members of the National Ladies' Auxiliary will have their first meeting the morning of the 26th. All ladies attending the Washington meeting are invited to this meeting. Don't forget the fourth National Honey Cookery Contest. The days are slipping by and the contest closes October 22nd.

Who can make the best Honey Pound Cake, the best Honey Cereal Cookie, the best Honey Candy? If you think you can do it, why not try? Perhaps some of your customers can. Write to American Honey Institute and get free copies of the fourth National Honey Cookery Contest rules for any who may be interested. They will be accompanied with entry blanks and anything sent to the fourth National Honey Cookery Contest must be accompanied by entry blanks. Judging Team will be Mrs. Fanny Walker Yeatman, U. S. Bureau of Home Economics, Washington; Mrs. Clara Gebhard Snyder, Wheat Flour Institute, Chicago; Miss Marjorie H. Black, National Canners' Association, Washington; Miss Frances T. Northcross, Director, Homemaker's Department, Washington Herald; Miss Ruth Sheldon, Home Service Director, Washington Gas Light Company.

This contest is open to everyone. Mail entries to American Honey Institute, Hotel Washington, Washington, D. C. Have the package properly addressed including your own address and accompany it by an entry blank for identification, placing the letter in a 3c stamped envelope attached to the package. An individual entry blank must accompany each entry.

Send to American Honey Institute for the circular "How to Win Money With Honey," which gives the classes, the prizes and all the conditions of the contest.

—ABJ—

Honey on the Hive

I don't know just how much honey it takes to make a pound of bees, though it should be a part of a beekeeper's business to know, just as it is a farmer's business to know how much corn it takes to make a pound of pork. But it has been proved in a general way that about 30 pounds of honey when active brood rearing begins in the spring will make 10 pounds of bees, if the queen is all right. Of course, the bees may gather some honey during that time, so that some of the original supply will remain; but if none is gathered very little of the 30 pounds would be left by the time 10 pounds of bees have been reared. That gives us one pound of bees from three pounds of honey.

A pound of bees at this season will cost 70 cents, plus express. Thus if three pounds of honey left on the hive will make a pound of bees worth 70 cents, it is evident that honey left on the hives and used in this manner by the bees is worth about three times as much as it would be after we had taken it off and extracted it.

The beekeeper's working force consists of bees. The more bees he has at the beginning of the honeyflow the more honey he will get. One way of judging the value of a queen is by the number of bees she can produce for the honeyflow. But the value of honey left on the hive, as compared with that taken off, has not been stressed so much.

W. H. Hull, Virginia.

STATEMENT OF OWNERSHIP

Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, of American Bee Journal, published monthly at Hamilton, Illinois, for October 1, 1937.

STATE OF ILLINOIS, } ss.
County of Hancock, }

Before me, a notary public in and for the state and county aforesaid, personally appeared M. G. Dadant, who, having been duly sworn according to law, deposes and says that he is the business manager of the American Bee Journal, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, rendered by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse side of this form, to-wit:

1. That the names and addresses of the publisher, editor, managing editor and business manager are:

Publishers, American Bee Journal, Hamilton, Ill.

Editor, C. P. Dadant, Hamilton, Ill.

Managing editor, G. H. Cale, Hamilton, Ill.

Business manager, M. G. Dadant, Hamilton, Ill.

2. That owners are:

American Bee Journal, Hamilton, Ill., owned by

C. P. Dadant, Hamilton, Ill.
H. C. Dadant, Hamilton, Ill.
V. M. Dadant, Hamilton, Ill.
C. S. Dadant, Hamilton, Ill.
L. C. Dadant, Hamilton, Ill.
M. G. Dadant, Hamilton, Ill.
Louisa G. Saugier, Hamilton, Ill.
Joseph Saugier, Hamilton, Ill.

That the known bondholders, mortgagees and other security holders owning or holding one per cent or more of the total amount of bonds, mortgages or other securities are: None.

(Signed) M. G. DADANT,
Business Manager American Bee Journal.

Sworn to and subscribed before me this twenty-first day of September, 1937.

MINNIE KING,
Notary Public.

My commission expires Nov. 18, 1937.

Another Doubting Thomas

Several references in recent issues of this journal credit the pollenization of red clover to the activity of bumblebees and the hope is expressed that, by selection, the corolla tubes of its composite flowers will become so shortened that honeybees can function likewise. We too add our wish that the flowers will be shortened, as everyone knows there is an abundance of nectar in the first crop of red clover. But, I think it is a myth about bumblebees doing the work of fertilizing the flowers for a large crop of clover seed.

This contention about the work of bumblebees is so old that it is legend. No one questions its authenticity, even entomologists tell it to their students. No one to my knowledge has ever set out in print the facts as they actually are. This I shall try to do.

Red clover is a biennial, growing the first season and bearing seed the second. It does its best to bear seed early in the season but conditions almost always forbid. There are profuse flowering and abundant growth, but conditions prevent seeding or I should say fertilization, so that seeding if any is done in the second crop. The blossom is a composite of many flowers growing singly on a common umble. Each flower consists of a long slender tube (corolla) shaped at its upper end exactly like a sweet pea. Its opening is a long slit that is usually sealed over with a sticky sweetish substance that prevents the floral organs from protruding unless the opening is forced by insects or the stickiness drys away. Each floweret bears a single seed in a capsule at the base. The floral organs inside the corolla tube push tightly against the upper end and the anthers which bear the pollen are thereby prevented from opening, so precluding pollenization until outside forces intervene. Bumblebees can and do force open these flowers but my contention is that the number of flowers so forced is negligible, and that bumblebees are not the great pollenizing agent they are credited to be.

Consider: There are approximately 375,000 seeds in a single pound of red clover. Sixty pounds to the bushel and four bushels to an average acre. Ninety million seeds. Ninety million separate flowers to be visited and broken open, with no telling how many failed to be fertilized. If any acreage is involved the task would be as inconceivable as the national debt.

Then what is the process of fertilization? It is wind aided by a desiccating atmosphere. Examine a field of June grown clover blossoms; chew one, it is very sweet; roll one in your hand, it is reeking with a sticky exudation, and it is that exudation that prevents the flowers from opening. Repeat this experiment in July or August when the summer sun has dried the blossoms and ground. There will be some sweetness but the gummy exudation will have largely if not entirely disappeared. It is then that the wind whipping and beating the blossoms around over and against each other that the flowers are broken apart and the floral organs exposed. I suppose I will be standing alone should I say that clover is mostly wind pollinated. But I am going to take that position. I am of the opinion that many smaller insects enter the partially open florets to spread pollen but to credit the task of fertilizing a whole field to bumblebees is a task so stupendous that it breaks under its own weight.

L. F. Childers,
Missouri.

ABJ

Why Florida Has Such a Variety of Honey Flavors

By Alfred H. Pering,
Florida.

Within the confines of the state of Florida, known as the "land of flowers," there are known to be over 3,500 flowering plants. In beauty and coloring, and in diversity of form, they rival those of any equal area in the world. A number of elements make up this large number of plants.

There are plants that belong in regions farther north, brought down into the state by floods—the tupelo. There are plants in the extreme south that belong to the West Indies region and there are still others peculiar to the state and to the lower south generally, and found nowhere else in the world. There are areas which have many kinds, and have their own interesting plant features, colors, fragrance of bloom and flavors of nectars produced—forests of palmettoes; sand dunes of wind-swept dwarf palms; tar-flower and rosemary-colored sand ridges; prairies of sunflowers; glades of saw-grass; swamps of cypress; river banks of gum, maple, magnolias and sweet-bay; lake edges of pickerelweed, water lily and hyacinth that choke streams and impede navigation; hills of dogwood and valleys of yew—just to mention only a very few of the most prominent. All these varieties of nectar producers each have their own distinct flavors imparted to the honeys. Then there are the citrus trees, the orange predominating. Other imported domestic fruits, and the blooming varieties of garden products, to say nothing of the wild and cultivated vines and berries. Honey flavors are almost without end in varieties.

The Postscript

GOSSIP ABOUT THE OFFICE IN THE MAKING OF THE MAGAZINE

Commenting upon the question of medicinal value of honey as previously discussed on this page, J. J. Homolka, of Brownville, Florida, writes to tell me that when his grandmother was a young woman her doctor diagnosed her as a consumptive and prescribed a diet of honey and goat's milk with the result that she lived to 88 and was free from illness until near the close of her long life.

—ABJ—

Homolka regards the heating of honey as injurious and it seems quite probable that he is right, that it does lose some of its good qualities by that means.

He also answers the question as to how far a swarm will fly by telling of one case he knew where they traveled ten miles before settling.

—ABJ—

A Texas reader asks for suggestions as the best sweet clover locations open at the present time. Changes in bee pasture are taking place so rapidly that one would hardly dare recommend a location which he has not visited very recently. Some of the locations which were of the best but a few years ago are no longer attractive because of a shift in the rotation of farm crops. Sweet clover and alfalfa have given place to other crops in too many cases for the comfort of the beekeeper.

—ABJ—

John A. Johnson, president of the Iowa Beekeepers' Association, wrote me that his hive on scales gained ten pounds on September 2nd at Pomeroy. There had been no gain at Atlantic for about two weeks when the letter came, and hardly ten pounds in two months. Thus do we find great variation in nectar secretion in localities but a short distance apart.

—ABJ—

Goldenrod has been unusually attractive to the bees here this fall. Never do I remember having seen so many bees visiting the goldenrod flowers as this year. There are not enough of the plants to make much difference to the bees in this locality, but the indications are that the few within reach are yielding nectar freely which is unusual.

—ABJ—

Goldenrod is regarded so highly as a honey plant in some eastern states that I have long wondered at its apparent lack of attraction for the bees out here. Perhaps the reason why bees are visiting it so freely this year is because other fall flowers have failed in their usual secretion. On the other hand, it may be that the conditions which result in failure for them may suit the requirements of the goldenrod. How little we know about the conditions which control our honey crop.

—ABJ—

A western beekeeper wants to know how to control the yellow jackets which are troublesome to his bees. Yellow jackets live in paper nests in large colonies. They are rarely troublesome and to a considerable extent beneficial. When they do become a pest as in this case, the remedy is to find the nests and destroy them. From Africa come frequent reports of large wasps which are so destructive to the bees that it is difficult to continue beekeeping in neighborhoods where they are plentiful.

—ABJ—

Nearly twenty years ago when F. B. Paddock was state entomologist of Texas, I made an extended trip through that state in company with W. E. Jackson. Only once since then have we met and then he was in the army. Now word comes that Jackson is in charge of the new apiary division of the Agricultural Department of Oklahoma. Thus one after another of the states give official recognition to bee culture. We are likely to hear more about honey production in the state of Oklahoma in the future.

—ABJ—

The report of the Iowa State Apiarist for 1936, recently issued, marks the 25th such report. A large number of men whose names are prominent in the beekeeping field appear as contributors to one or another of the volumes. In the complete series one finds a rather comprehensive library of beekeeping information. While most states support horticultural societies which publish annual volumes, but few issue an annual volume relating to beekeeping and the series increases in value with the years.

—ABJ—

We are indebted to S. W. Clark, of Weslaco, Texas, for a large nest of the honey making wasps of the Rio Grande Valley. These insects make paper nests which resemble those of the bald faced hornet, but unlike the hornet, they gather and store honey as do the honeybees.

The nest, which arrived in fine condition, is larger than any hornet's nest which I have seen. Honey storing wasps are found only in warm countries. In appearance they greatly resemble our yellow jackets.

—ABJ—

H. E. Weisner, of Arizona, writes to say that when poison is spread by aeroplane, large numbers of birds as well as bees are killed. Since birds are the best natural safeguard against insects, such destruction offers a serious threat for the future.

In view of man's stupidity in destroying so many natural resources, including those on which his very existence depends, one cannot but wonder whether the race will not eventually disappear from the earth as completely as some pre-historic animals have done, due to his inability to meet the changes caused by his own folly.

—ABJ—

This part of Iowa was formerly thought to be a sure crop country, but this long series of dry seasons has raised a grave question as to what lies ahead. This is the eighth successive year of deficient rainfall. More than a hundred trees in my grove have died and many more show serious injury which indicates that they soon must come down. Digging a ditch to the depth of six feet we found no evidence of subsoil moisture, which gives little encouragement for the immediate future.

—ABJ—

The white Dutch or pasture clover was formerly the source of very good honey crops here. We regarded the clover crop as dependable. The dry seasons have about finished the white clover and since the farmers of this neighborhood have not grown much sweet clover, there is no longer any dependable bee pasture. We thus find ourselves in the same position as many others where changing conditions bring new problems.

—ABJ—

The new Zofka red clover has set seed more freely than any red clover which I have previously known. Commonly the heads have from fifty to sixty seeds with an occasional one with more than one hundred. The highest number of seed counted in an individual head was 132. The bees have visited the clover freely all summer except for a few days when large numbers of big flies were present to provide competition. During the time of their stay the bees deserted the flowers, returning again after the flies had gone. Flowers blooming during this time set but few seeds and some none at all.

—ABJ—

A recent issue of the New York Times had an interesting story of "white paste honey" produced by Trappist Monks in Canada, now on sale in a New York food store. It told also of orange blossom honey from California. Certainly a little imagination on the part of the beekeeper enables him to put up a product which attracts the interest of the public. No common food item has greater possibilities than honey, yet we permit it to sell in direct competition with the cheapest syrup produced in large factories. Instead of trying to prevent granulation, the Trappist monks capitalize it and get a news story in the most widely distributed newspapers.

—ABJ—

And now back to town and the office for the winter months until time to start things moving again here at the farm next spring.

FRANK C. PELLETT.